OLD!

THE ESSENTIAL GUIDE TO CLASSIC GAMES

retro GAMER



AMSTRAD | COMMODORE | SEGA | NINTENDO | ATARI | SINCLAIR | NEO-GEO | SONY | COIN-OP | MOBILE



THE HISTORY OF WOLFENSTEIN

JOHN ROMERO AND TODD HOLLENSHEAD RETURN TO ID SOFTWARE'S GUNG-HO FPS

SURVIVING MOON CRESTA

EVERYTHING YOU NEED TO KNOW ABOUT NICHIBUTSU'S SEMINAL SHOOT-'EM-UP

SONIC THE HEDGEHOG 2

SEGA SUPERSTARS TAKE US BEHIND THE SCENES OF THE BLUE BLUR'S **LEGENDARY SEQUEL**



THE SOUND OF THE AMIGA

MUSIC MAESTROS REVEAL HOW THEY MADE COMMODORE'S ICONIC 16-BIT HOME COMPUTER SING



CREATING CRASH TEAM RACING

DAN AREY TELLS US HOW NAUGHTY DOG TOOK ON MARIO KART

ULTIMATE PLAY THE GAME

WANT TO BE THE ULTIMATE COLLECTOR? OUR FANTASTIC GUIDE REVEALS HOW

PLUS

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THE RETROBATES

HOW DOES TAILS FLY WITHOUT TANGLING HIS TAILS?



DARRAN JONES

I think it's because he's a byproduct of Dr Robotnik's cruel experiments and he simply uses a rotor blade covered in dead fox fur.

Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine

Currently playing:
Skyrim

Favourite game of all time:
Strider



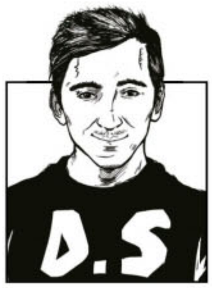
NICK THORPE

The cartoons have him wind them up first, so I'll just assume that animation got cut from the games to avoid any rumination on the anatomy of a fictional mutant fox.

Expertise:
Owning five Master Systems (I sold two)

Currently playing:
Sonic Forces

Favourite game of all time:
Sonic The Hedgehog 2
(Ed - Hehe.)



DREW SLEEP

His tails move so fast that one of them phases out into a mirror universe every time they're about to cross over… I've thought about this too much.

Expertise:
Holding back tears at a Distant Worlds concert

Currently playing:
Persona 5 (I'm almost finished with it, alright)

Favourite game of all time:
Final Fantasy VIII



SAM RIBBITS

Ah, that age old question. If Tails winds up his tails before he flies, is he mechanical or is there some sort of elastic involved?

Expertise:
Pixels

Currently playing:
Pokémon Ultra Moon

Favourite game of all time:
Croc: Legend Of The Gobbos



ANDREW FISHER

By using that well-known shampoo 'Head & Tails' to leave it glossy and manageable.

Expertise:
Commodore 64 and Nintendo player for over 30 years

Currently playing:
Judge Dredd
Versus Zombies (iOS)

Favourite game of all time:
Wizball (C64)



GRAEME MASON

He uses magic rings. It's the obvious answer.

Expertise:
Adjusting the tape azimuth with a screwdriver

Currently playing:
Telltale's The Walking Dead Season 2

Favourite game of all time:
Resident Evil 4



DAVID CROOKES

Well, that's a head-twisting question that has certainly outfoxed me!

Expertise:
Amstrad, Lynx, adventures, Dizzy and PlayStation (but is it retro? Debate!)

Currently playing:
Uncharted: The Lost Legacy

Favourite game of all time:
Broken Sword



PAUL DRURY

Well, we all know what the fox says – "Ring-ding-ding-ding-dingeringeding." Which does sound like an appropriate answer… right?

Expertise:
C64 cheat codes

Currently playing:
Call Of Duty: World War II

Favourite game of all time:
Sheep In Space

LOADING...



There's a little running joke in the office when every month I change Nick's favourite game of all time to *Sonic The Hedgehog 2*, only for it to get changed back again. He's a huge fan of *Sonic*, one of the biggest I know, so I never miss the opportunity to suggest that *Sonic 2* was the better game. In fact, in the four years of working with him I've finally managed to get him to admit that the sequel has better music. I'm sure with enough time I'll get him to agree with me on *Sonic 2*'s status as the best 2D *Sonic* game, but I'll take my victories where I can get them.

But what makes the game so special? To me it was seeing it running split-screen with a second player. Sure, Tails wasn't as cool as Sonic, but splitting the screen felt like an astonishing achievement at the time and it was bolstered by *Sonic 2*'s stunning pseudo 3D bonus stage. Everything about *Sonic 2* felt more refined, more focused and even brighter than the original game and it remains my favourite game in the series.

It's a real pleasure then to be able to speak to some of the minds that made Sega's sequel so good and find out how Eastern and Western developers teamed up to create the best 2D *Sonic* game of all time. Oops, I'm doing it again, aren't I?

Enjoy the magazine!





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>> Load 175 Breathing new life into classic games

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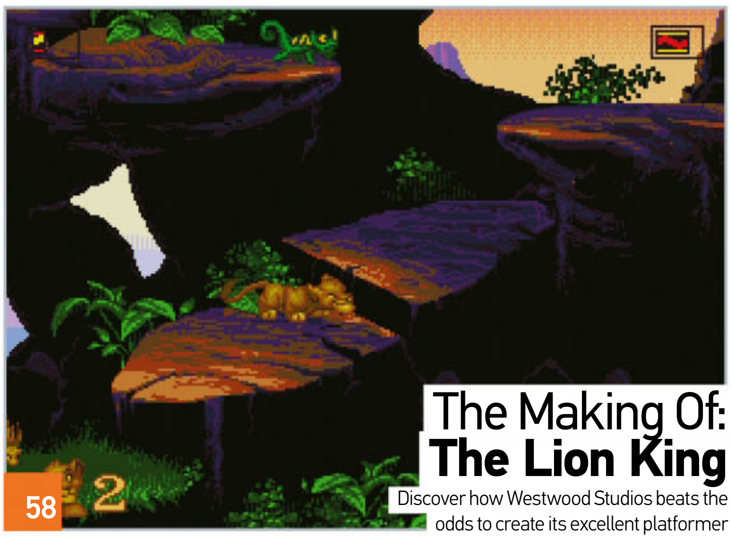






"We didn't want to slow it down so we actually removed the features and kept is fast"



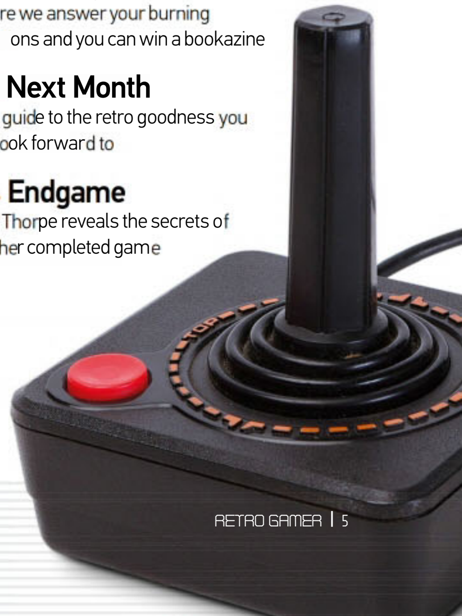


REVIEWS





ESSENTIALS







SHOOTING FOR GOAL

Jon Hare on re-energising arcade-style football for a new generation

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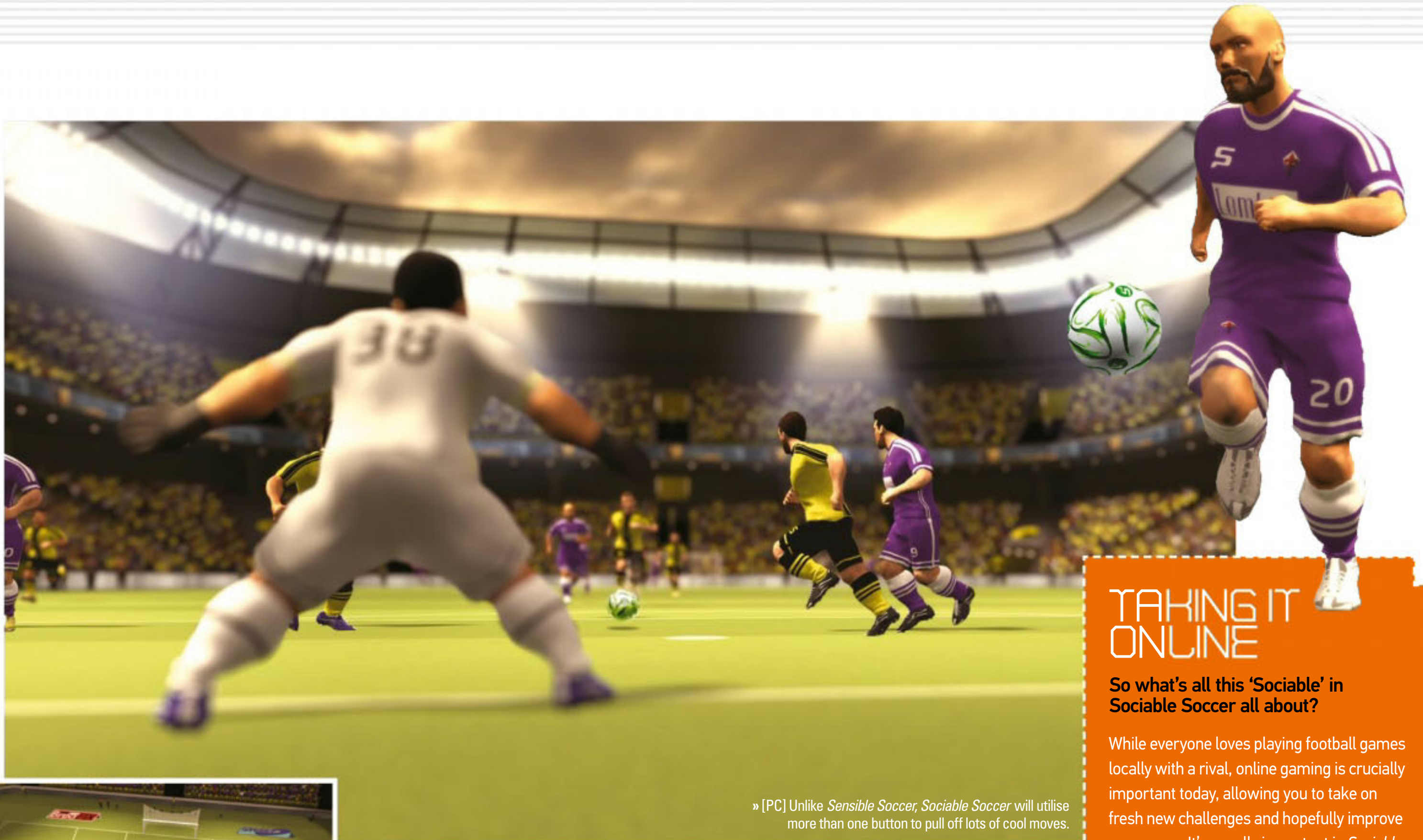
It's been an interesting two years for *Sociable Soccer*. It arrived to great fanfare on Kickstarter in November 2015, but was cancelled just two weeks later when it became obvious that it would fall well short of its £300,000 target. Despite a disappointing start, Jon and his team have doggedly continued work on *Sociable Soccer* and recently released it on Steam's Early Access. Needless to say, Jon is very excited about the game's future.

What changes have you been making since you first started on *Sociable Soccer*?
The game has been constantly evolving since we started development. Our plan has always been to take the tried-and-tested model I have always used in football games – lots of teams and competitions from all over the world – as a starting point and then add in a new online league system based on the clubs and countries and socially generated clans that people want to represent. However, the means in which we merge these features together has been continuously evolving from what you see now to how we started out.

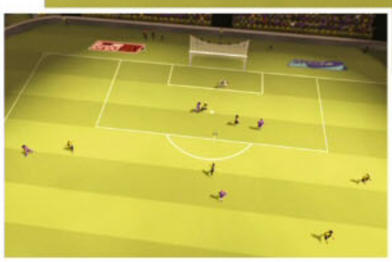
We have also been adding platforms and control methods as we have been going along, so that now we can support mobile, touchscreens, VR and Nintendo Switch as well as the traditional PC and Console platforms. Such a broad range of content and devices to support has been possible, thanks to Unity, and has led us down the path to constructing the game in a certain way to allow for total cross-platform compatibility on many levels, ending up with a combination of controls, online components and team upgrading options that are at the same time familiar and unique. Of course, we are still continuing to add to and perfect our game and it is still a fair way from being a totally finished product, so much more to come yet



You've shown it off at recent events. How has it been going down with audiences?
It has been going down incredibly well with players of all ages, as well as old retro fans – we have also had a lot of fathers and sons playing it together and groups of young people, mostly boys picking it up very fast and quickly enjoying the ability to gloat at their friends as they score goals. The game was nominated for a Game Of The Show award at Gamescom this year and won second place in the VR Big Indie Pitch last year. We have now taken the game to about 15 different shows across Europe and is currently being exhibited for the second time in the London Science Museum.



» [PC] Unlike *Sensible Soccer*, *Sociable Soccer* will utilise more than one button to pull off lots of cool moves.



» [PC] *Sociable Soccer's* VR mode lets you see the action as if you are a television camera operator.

> **"Sociable Soccer is its own game, as anyone playing it will quickly appreciate"**
> Jon Hare

It looks quite fast compared to *Sensible Soccer*, is this intentional?

Sensible Soccer has obviously been an inspiration for this game, but *Sociable Soccer* is its own thing, as anyone playing it will quickly appreciate. The game is as fast as we feel it needs to be to get the most out of the incredibly responsive control system. Once you get to the level of being a good player every millisecond counts and the multiplayer duels we have enjoyed during development sometimes leave you feeling like you have just been playing a fighting game. It can induce a genuine adrenaline rush as you thwart attack after attack with skilfully timed slide tackles and headers, while the three-minute match time means that even if you are losing the pain is over before you really have a chance to feel too bad about it and then you are straight onto the next match.

Tell us a little about the new virtual reality mode.

When we added VR support we realised very quickly that it is a great addition to the game. The angle we take, set high up in the stand on the halfway line gives you the view of a TV cameraman, you always have a perfect view of the action and it induces no motion sickness at all. We have found that the ability to perceive the three-dimensional nature of a football pitch and the relative position of all the players is enhanced in 3D, meaning that picking the perfect angle at which to curl the ball into the top corner is somehow even more gratifying when it hits the back of the net.

What benefits do early access offer to you and the consumer?

We have been developing the game for two years now and felt the local multiplayer part of the game was definitely in good enough shape to release commercially. Games against the AI and the game modes that support AI games are still work in progress but we feel they are good enough to at least have some fun with and get to learn the basics of the game. Online play is currently in beta testing internally and already works well when played from UK to Finland, however the lobbying and finer points of this are a fair way from being consumer friendly right now. Early Access gives us the chance to share the game with fans who want to see what we are up to and to take on board some of their feedback and build our community, it also enable us to gauge the strengths and weaknesses of what we are offering and to show prospective commercial partners that a game like this has a real future as an alternative, more arcade take on football action games.

Why do you think football games remain so popular with gamers?

Football is the greatest sport in the world, I still play as often as I can, watch the game on TV several times a week and also go to see my favourite team, Norwich City, live when I can. Playing football games is an extension of this passion and there are millions of people around the world just like me. Also if you present football as a fun arcade game it can appeal to non-football fans too, *Sensible Soccer* was like this and *Sociable Soccer* is fast turning out to be the same. *

TAKING IT ONLINE

So what's all this 'Sociable' in Sociable Soccer all about?

While everyone loves playing football games locally with a rival, online gaming is crucially important today, allowing you to take on fresh new challenges and hopefully improve your game. It's equally important in *Sociable Soccer* and Jon's team is adding numerous ways that you can enjoy the game online. There's the option to play head-to-head online with others in friendly matches and it's also possible to create DIY competitions for up to eight online players. While esports tournaments are going to be a big feature in *Sociable Soccer*, allowing you to represent your club, country or clan, Jon has high hopes for the Online League system, which appears to share some similarities with *FIFA*'s Ultimate Team. "You choose to represent one of the 830 international club sides in the game and, over time, play against other players online and build up your squad by collecting a number of the 30,000 player cards available as you climb the online league system," he explains. Here's hoping it fixes the mistake of EA's popular game mode and adds a collectible sticker book as well.

Sociable Soccer is available now via Steam early access.



» [PC] *Sociable Soccer* has a lovely style to it and it runs at a fair old whack too.

Here's my bio… Paul Rose
Paul Rose is probably better known as Mr Biffo – the creator and chief writer of legendary teletext games magazine *Digitiser.* These days, he mostly writes for kids TV, but can still be found rambling on about games, old and new, for his daily website, Digitiser2000.com.



"I remember the thrill of playing The Empire Strikes Back on my Atari 2600"

"I've seen things…"

As a gamer, I'm glad I was born when I was born. I mean, sure, kids today have it good. Can you imagine if something like, say, *The Witcher III* or *GTAV* landed in the laps of a kid in 1987? They'd have been reduced to a twitching, chattering, mess on their bedroom floor, unable to conceive of what they were seeing.

But the thing is… kids are now becoming gamers expecting all games to be enormous, photorealistic, epics, with lovely sunsets and beautiful forests. They don't know the backstory. They don't know that some of us had to suffer through *Katsumi Ninja* and *Rise Of The Robots* so they could have *Mass Effect* and *Red Dead Redemption*? I dunno if this is the case, but do they just take it all for granted? Games are now so slick and advanced that they're going to move forward in increments.

By comparison, over the span of my lifetime, I've seen games go from being a couple of white paddles on a black screen batting a square back and forth to *Monty Mole* to *WipEout* to, well, *Resident Evil VII*, which I played for three hours on my PlayStation VR headset, and had to go outside to get some air because I was moments away from vomiting.

I've seen the progression. I grew up alongside games. I remember playing Sega's *Killer Shark* in the arcades – a mechanical nonsense which didn't even use a monitor – and thinking it was the coolest thing ever. I remember the thrill of playing *The Empire Strikes Back* on my Atari 2600 and not being able to believe that I was enjoying such a high-tech experience in my own home. I remember loading up *Castle Master* on my Atari ST and having vivid nightmares based upon the game, because the graphics were so realistic.

I've been lucky enough to be there at every stage, more or less, in the evolution of gaming, and witness new generations – my own children – grow into gamers.

I realise I'm probably getting a bit, 'Tears in the rain' about all this, but there's no sadness or wistfulness here. In fact, I feel privileged. More than anything else in my lifetime, watching gaming grow – perhaps because of the speed with which it has grown, like watching a timelapse video of a plant flowering – feels like I've seen history happening before my eyes. I've felt like a spectator to something truly monumental and epoch-defining.

Forget the fall of The Berlin Wall. Forget The Falklands War. I was there when *Super Mario* chased that rabbit, mate. Wherever gaming goes from here, wherever the geniuses who make our games take the medium, I'll know for the rest of my days that I was there at the start. I survived the Titanic. I stormed the beach at Normandy. I got turned away from my bedroom by Maria when I just wanted to go to bed, and I'll always be able to tell those stories.

What an amazing thing to be able to say. *

Do you agree with Paul's thoughts? Contact us at:

RetroGamerUK @RetroGamer_Mag darran.jones@futurenet.com


Free delivery within the UK

Playing With Super Power: Nintendo Super NES Classics

This officially-licensed book has been well timed to coincide with the release of the SNES Mini, and features fascinating looks at preproduction sketches as well as the finished machine and games. The book concentrates on first-party games such as *Super Mario World*, *The Legend Of Zelda: Link's Awakening*, *Super Punch-Out!!* and *Super Metroid*, and it goes into great detail on each.

What's nice about this book is that it places each game in context – for example, explaining its place within the series, showing manual illustrations, and even examining unused content. This makes the book a useful resource for those who wish to learn more about the SNES, as well as a nostalgia-inducing item for those who experienced it the first time around.

Price: £15.82 (hardback) **From:** amazon.co.uk

Retro Gamer Annual Vol 4

Our latest annual is 164 pages packed with all of the biggest features from the last year of the magazine – perfect for those of you who don't join us every month. You can look forward to big articles on the ZX Spectrum, *Super Mario Kart*, *Tomb Raider*, the Amiga 500, the PC Engine, *Pokémon*, *Virtua Fighter*, *Resident Evil* and more.

Price: £9.99 **From:** myfavouritemagazines.com



100 Best Video Games (That Never Existed)

Have you ever played *Wrestlechess* for the NES, *Dance Dance Industrial Revolution* for the PS2 or *Genghis Can't* for the PC? Neither have we, but we absolutely want to thanks to Nate Crowley's book of fictional videogames. It's hilarious, disturbing and slightly odd in equal measures, leading to compelling nightmare visions such as *Thomas The War Engine*.

Price: £8.68 **From:** amazon.co.uk

A Guide To ZX Spectrum Games 1982 To 1984

There's an enormous wealth of software for the ZX Spectrum, so it's no surprise that Shaun McClure and Hilary Wells have chosen to tackle releases from the early years in this guide – there's quite enough for a full read. Each game is given at least a greyscale screenshot, an overview and some impressions from the author, with developer interviews interspersed throughout.

Price: £15.60 **From:** amazon.co.uk

Attack Of The Flickering Skeletons

We really liked Stuart Ashen's first book, *Terrible Old Games You've Probably Never Heard Of*, and this book delivers more of the same. The trick with this book is that the games are genuinely obscure – you'll find games like *Deathkick* and *ProSoccer 2190* in here, as well as guest accounts of crushing disappointment from the likes of Larry Bundy Jr and Jim Sterling.

Price: £9.71
From: amazon.co.uk


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Vinny Mainolfi

The man behind C64 fanzine FREEZE64 tells Paul Drury about keeping it retro

Fanzines are an integral part of the retro gaming community, and we have seen a large number of them appear over the years. *FREEZE64*, created in July 2016, was created as a bastion of love for the Commodore 64. We caught up with its creator, Vinny Mainolfi, to learn more.

So why are you producing a fanzine in 2017?

When I first started *FREEZE64*, my intention was to produce something that not only provided C64 retro content but also looked and felt retro. I wanted to avoid going down the digital, PDF route as I feel it's a little impersonal and doesn't provide a direct link between me and my readers. I know each and every one of my readers, and because of it, they know and trust me. After selling over 300 copies of issue one, it was obvious that I had made the right decision to go for a physical fanzine.

How long have you been obsessed with the C64?

I've been with the Commodore 64 since 1983 and I just can't seem to give it up. It was *the* best 8-bit home computer and is a very versatile machine. *FREEZE64* embraces the nostalgic feel of that gaming era, whilst at the same time looking to the future by supporting and reporting on new games.



» You can buy all 14 issues of the fanzine from freeze64.co.uk.

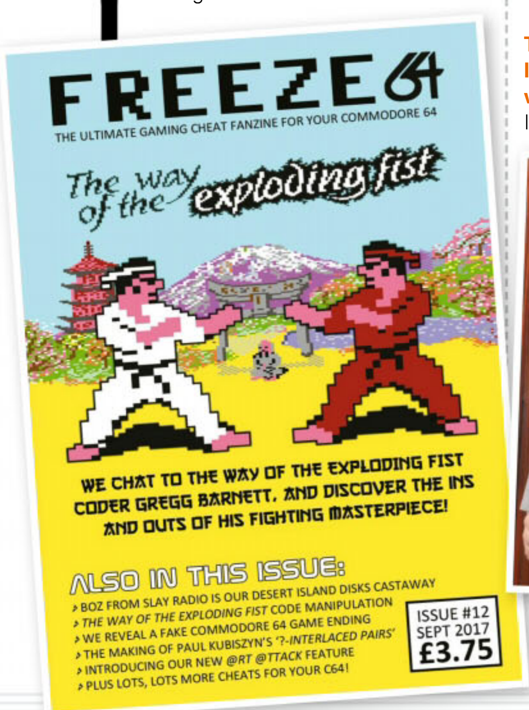


You've interviewed some big names on the C64 scene for *FREEZE64*, like Andrew Braybrook and Jon Hare. What has it been like talking to your heroes?

It's the strangest feeling ever but at the same time, a massive tick off my bucket list. These guys were, and still are, our gods. It's strange to think that 30-odd years after bunking off school to play games such as *Uridum*, *Wizball* and *Way Of The Exploding Fist*, I would be in direct contact with these legends. It's a dream come true.

The mag has cheats and pokes, just like in old days. Do you come up with them yourself?

I've always been a C64 game hacker and since 2011 I've taken it up a notch by producing crazy hacks for various games. I scour the original code, find somewhere to insert a new piece of code and then start adding in cheats and new features to the game. I've even managed to get Monty Mole to fly around the whole of *Monty On The Run* with a jet pack. My good friend, Frank Gasking, suggested writing a book but I didn't want to spend months on end writing chapter after chapter, so I opted to produce a regular fanzine and publish them there.





» Andrew Braybrook of *Paradroid* and *Uridium* fame enjoys his copy of *FREEZE64*.

We like the 'mouldy cupboard' feature where you dig out an old forgotten game. Is there literally a cupboard in your house with old tapes in, festering away?

Yes, the Mouldy Cupboard is real! I purchased the house that I live in from my parents and the cupboard always housed storage boxes of very old C64 games. I started looking through and seeing games that I just didn't remember owning or even playing and so I wanted to share my experience of revisiting them. And I never realised that *Gumshoe* by AnF Software is actually a good game!

What are your plans for future editions of *FREEZE64*?

I'm always looking to expand the amount of content and pages and I have plenty more famous programmers lined up for interviews.

> "I wanted to produce something that not only provided Commodore 64 retro content but also looked and felt retro"
> Vinny Mainfoli

I'm looking to produce new features with different angles and there will be a lot more free cheats cards and goodies, plus I've got a whole host of old and new Commodore 64 games to write about and hack.

Okay, we're sold – how can we get our copy of the fanzine?

You can buy individual issues or subscribe from our website at freeze64.co.uk and I will post copies out to anywhere in the world. Issue 14 of the magazine is out this month. If you are interested, you can download my crazy game hacks from hackersoft.co.uk and do visit my c64endings.co.uk site too. *


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JEWEL IN THE CROWN

THE LEGEND OF ZELDA: A LINK TO THE PAST

■ "This is sealed with a slight cut in the plastic. It's the most expensive game I've ever paid for. I bought it on the Wii Virtual Console to test the waters, but then I jumped right in when I went and got my PAL version with everything, including the map.

PAID: $400 AU

TETRIS

"I can play *Tetris* any time, anyplace anywhere so luckily it's mostly on portables. With this age we live in of people complaining and comparing frame-rates and resolutions I'm just happy with falling blocks."

PAID: Free

WILD GUNS

"I paid $20 AU in 2009 or 2010 for a PAL copy near-mint. For a time we had a retail chain called Game Traders, they had no idea what they had, but I did.

PAID: $20 AU

F-ZERO

"I got this for Xmas with my SNES, but in 2003 I paid $5 AU for a sealed copy when nobody else was interested in buying it."

PAID: $5 AU

SUPER STAR WARS

"I have three copies - my original, a sealed NTSC version and a PAL version. For the sealed copy I paid around $20 AU."

PAID: $20 AU



The SNES Hunter

Readers take us through the retro keyhole

BIO

NAME: Toddy McDonnell

ESTIMATED VALUE: Much more than what I paid, I would prefer to give away a kidney before selling anything

FAVOURITE SYSTEM: SNES

FAVOURITE GAME: *Super Mario world*

Collectors tend to start their collections later in life, often revisiting their love of games once they reach adulthood and have access to a disposable income. Todd McDonnell, a reader from Australia, solved this expensive solution by keeping hold of his precious games. "I've never sold anything since Christmas 1993", he tells us, "but I actively went back to my gaming roots in 2003 because it was a cheaper option between buying new current-gen games." It seems a ridiculous concept to wrap your ahead around when you consider what the PAL SNES games Todd now tends to focus on currently go for, but that early decision proved to be incredibly canny, and frugal. It also helps that Todd absolutely loves Nintendo's 16-bit console.

"The SNES is that sweet spot between blocky 8-bit and the blocky polygons of the 32-bit era," he tells us. "It's colourful, bright and has some of the best games ever made on one console, but I never knew that at the time but – it just worked out like that – because as I saw them gradually getting higher in prices, I wanted to beat the crowd, which I did for the most part. Plus, I didn't have lots of shelf space and, factoring in the rising prices, I decided early on to only focus on my favourite console and the games I wanted to play, so my collection became more of a quality collection over quantity collection organically."

It's certainly a sensible approach to take, but it remains a costly one as Todd admits that his nostalgia for those games he owned as a child have now become particularly expensive next to their NTSC counterparts. Does it bother him that he pays more for arguable weaker versions? "Living in Australia early on, we got everything late… and usually more expensive – I'm more than used to it by now but it still frustrates me," he begins. I have a love/hate relationship with PAL because I grew up on it and still prefer the look of the PAL cartridges, even if the games are slower, but those past nostalgic memories are getting expensive…"

It's going to continue too, because even though SNES games have been hitting silly prices in the last few years, Todd still feels they're not going to come tumbling down any time soon. "It seems to me that most of the games that have always cost more than the rest certainly are stabilising because the prices are getting so far out of reach," he begins. "[However], even common *Mario* games that sold millions are getting expensive. When something is too expensive we generally look for cheaper options, which in turn could accidentally inflate those prices. Luckily, I already have most of the staple titles anyway, but I do not see myself paying $1,000 for *Earthbound* – which I do not own."

It's a sensible idea, but it's the approach Todd has always taking, mainly due to lack of space at home. "I just want to buy games that I want to play because I have no interest in buying titles that I do not want to play," he concludes. "But in saying that I also have no problem with other people doing just that – in fact, I applaud it if that's what they want to do. I try to bring people up and not put them down." *

SUPER MARIO WORLD

"I have my original cart to which came with my SNES – but no box. It's fun, it's bright and it has made such an impact on me that I've asked my wife to have this game with me at my funeral clenched in my hand as they lower me into the ground."

PAID: $100 AU




PUT A PAUSE IN YOUR DAY
With so many demands from work, home and family, there never seem to be enough hours in the day for you. Why not press pause once in a while, curl up with your favourite magazine and put a little oasis of 'you' in your day.
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To find out more about Press Pause, visit;
pauseyourday.co.uk

BACK TO THE NOUGHTIES

NOVEMBER 2000 – Nintendo and Sega prepare for PS2, the Soviet Union invades America and Core Design is literally flogging a dead Lara Croft. Nick Thorpe jumps in the time machine to figure out what's going on…



NEWS NOVEMBER 2000

The US presidential election was held on 7 November, but resulted in a disputed outcome. Sitting vice president and Democratic candidate Al Gore had won the popular vote, but Republican candidate George W Bush was declared the winner after winning the decisive state of Florida with a margin of just 537 votes. Legal challenges meant that recounts continued well into December, until the Supreme Court's 5-4 decision to end the process and allow the original result to stand.

On 20 November, Judith Keppel became the first person to win £1,000,000 on the UK version of *Who Wants To Be A Millionaire?* The garden designer, who had spent over £100 on phonecalls to the show's entry line, was watched by 13.9 million viewers.

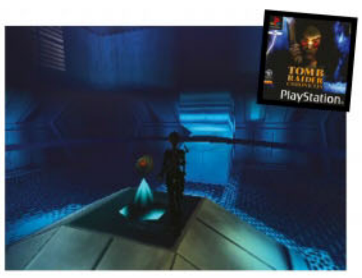
On 27 November, ten-year-old Damilola Taylor was killed in Peckham, London. According to the Metropolitan Police, the schoolboy was attacked while walking home and fell onto a broken bottle. A 2002 murder trial resulted in no conviction for the four suspects. New evidence prompted a manslaughter trial in 2006. One suspect was cleared but no verdict was reached for brothers Ricky and Danny Preddie (aged 12 and 13 at the time of the attack), who were convicted upon retrial. Both boys were sentenced to eight years in youth custody.



[N64] *Sin & Punishment* wouldn't appeal to everyone, but action fanatics would never forget it.

THE LATEST NEWS FROM NOVEMBER 2000

In the late Nineties, Lara Croft's annual return to consoles had become something of a Christmas tradition, awaited by millions of *Tomb Raider* fans across the world. The good news for those fans was that despite the heroine's death at the end of *Tomb Raider: The Last Revelation*, Lara Croft was well enough to do a game for 2000. However, Core Design also confirmed that this would be the last of the annual sequels and Lara's PlayStation swan song, as the next adventure would take place on PS2. *Tomb Raider: Chronicles* was to take the form of a series of flashbacks, inspired by the tales of mourners gathered at Lara Croft's funeral. Additional stealth moves including a tightrope walk were to be added, as well as the ability to combine items such as chloroform and a piece of cloth. Despite being a high-profile release, the press didn't have much to say, with some outlets giving as little as half a page for preview. What was behind such a muted response? *CVG* summed up the mood well at the end of its four-page preview: "The new features are all looking good, but if you've played four *Tomb Raider*s already, it's gonna take something special to keep you hooked to the end."



[PlayStation] Lara goes a bit *Matrix*, in order to keep up with the trendy kids.

With the launch of the PlayStation 2 looming, the competition was engaging in last-ditch attempts to shore up some market share before a tough Christmas. Sega announced a new £299 Dreamcast bundle, including the console, *Chu Chu Rocket* and a standalone DVD player, in a clear attempt to match the major secondary draw of Sony's console. Meanwhile, Nintendo showed off a range of N64 games in an attempt to keep its customers busy until the Game Boy Advance and GameCube hit the scene. The *Legend Of Zelda: Majora's Mask* would cap off 2000, and Rare's adult platform adventure *Conker's Bad Fur Day* was a sign that there was still life in the machine heading into 2001. The most enticing game to come was Treasure's *Sin & Punishment*, a *Cabal*-style 3D shoot-'em-up which reaffirmed the developer's reputation for technical excellence – it scarcely seemed possible on the hardware. However, it wasn't all good news as Capcom officially announced that development of *Resident Evil Zero* had shifted from the N64 to the GameCube.

Halfway across the world, Bandai was also hoping to fend off the assault of Nintendo's forthcoming Game Boy Advance, by unveiling the WonderSwan

THIS MONTH IN…



Computer & Video Games

"*Half-Life*: Dreamcast's done it – and very well. So why not a cut-back Advance version?" No, you didn't read that wrong. *CVG* was really advocating for the groundbreaking shooter to be converted to the GBA. Now, there's just a /bit/ of a gulf in performance between the Dreamcast and that handheld…



Edge

"We are targeting the launch so that some kind of game will take advantage of the modem technology that will be launched simultaneously with the GameCube," says Shigeru Miyamoto. While he doesn't mention a game, you can see the foundations of Nintendo's excellent modern online infrastructure. [Erm, hang on… - Ed.]



Video Gamer

This magazine's debut cover feature was on the Xbox. "*Video Gamer* can also exclusively confirm that Lara Croft, star of the *Tomb Raider* games, will definitely be one of the launch games," it crowed. Lara's only Xbox appearance came in April 2006 with *Tomb Raider: Legend*, five months after the launch of the Xbox 360.



[Dreamcast] Awesome FPS, game of the month! Except it didn't get released – naughty naughty, *CVG*…



[N64] Combine a regular sport, add power-ups. Now you have a *Mario* sport.

Color. The toy giant's new machine would use the same 16-bit hardware that underpinned the monochrome version of the console, but boasted a larger screen capable of displaying 241 colours from a palette of 4,096. A strong software line-up was already in the works, with Square notably providing a number of games including remakes of its early *Final Fantasy* titles. *Edge* questioned the prospects of the machine, saying that although it would "undoubtedly find a market in Japan, it remains to be seen whether this will be sufficiently large." But that wasn't all Bandai had in store – according to *CVG*, the company had also announced the North American release of the WonderSwan. "Hopefully this may herald a European release as well soon," the magazine wished aloud. *Edge* had also questioned if leveraging *Final Fantasy* would give the machine a chance of asserting itself in the minds of Western audiences. However, the promised export never materialised.

If *CVG* was to be believed, the Dreamcast version of *Half-Life* was the undisputed game of the month, with the magazine claiming that it was going to "put a grin wider than the Watford gap on the faces of trigger happy DC players." The magazine awarded the game the full five stars, despite the multiplayer modes having been completely excised (reportedly for an add-on disc to arrive at Christmas). The only problem was that the game wasn't finished and it never came out.

PC gamers were well-served with the glorious real-time strategy sequel *Command & Conquer: Red Alert 2*. This followed on from the alternative history of the original *Red Alert*, this time focusing on a Soviet attempt to invade the USA in the Seventies. While it wasn't winning any points for originality, the game's appeal was hard to deny. According to *CVG*'s 4/5 review, the game was "often a faster, less predictable and a more challenging experience than its predecessors". *Video Gamer* awarded the game 8/10, with particular praise for the multiplayer mode and its "staggering" amount of options.

Finally, two very different alternative sports games arrived to two very different receptions. Futuristic sports fans were left underwhelmed by *Speedball 2100*, the PlayStation sequel to the Bitmap Brothers' 16-bit classic *Speedball 2: Brutal Deluxe*. *Edge* described the game as a "polygon photocopy of the original" in a 4/10 review, lamenting that the game's presentation and game design both failed to take advantage of 3D technology. N64 owners got the much more colourful *Mario Tennis*, which *Video Gamer* awarded it 8/10. Comparing it to *Virtua Tennis*, reviewer Martin Kitts felt that Nintendo's game "gives you more control over the ball and has cuter characters".

Next month, the end-of-year holiday onslaught arrives in full force – are your bodies ready? *



Bandai certainly had deep pockets, but competing with Nintendo was a hard task.

CHARTS

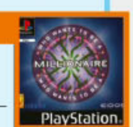
NOVEMBER 2000

NINTENDO 64



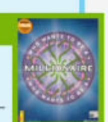
1 Pokémon Snap (Nintendo)
2 Perfect Dark (Nintendo)
3 Pokémon Stadium (Nintendo)
4 Turok 3 (Acclaim)
5 Rugrats Treasure Hunt (THQ)

PLAYSTATION



1 Who Wants To Be A Millionaire? (Eidos)
2 Tony Hawk's Pro Skater 2 (Activision)
3 Spider-Man (Activision)
4 Sydney 2000 (Eidos)
5 Rayman (Ubisoft)

PC



1 Who Wants To Be A Millionaire? (Eidos)
2 Baldur's Gate II (Black Isle Studios)
3 The Sims: Livin' It Up (EA)
4 Age Of Empires II: Conquerors (PC)
5 Sydney 2000 (Eidos)

MUSIC



1 Can't Fight The Moonlight (Leann Rimes)
2 One More Time (Daft Punk)
3 Who Let The Dogs Out? (Baha Men)
4 Please Don't Turn Me On (Artful Dodger)
5 Feel The Beat (Darude)

RETROREVIVAL

Jumping Jack

NOT SO FLASH



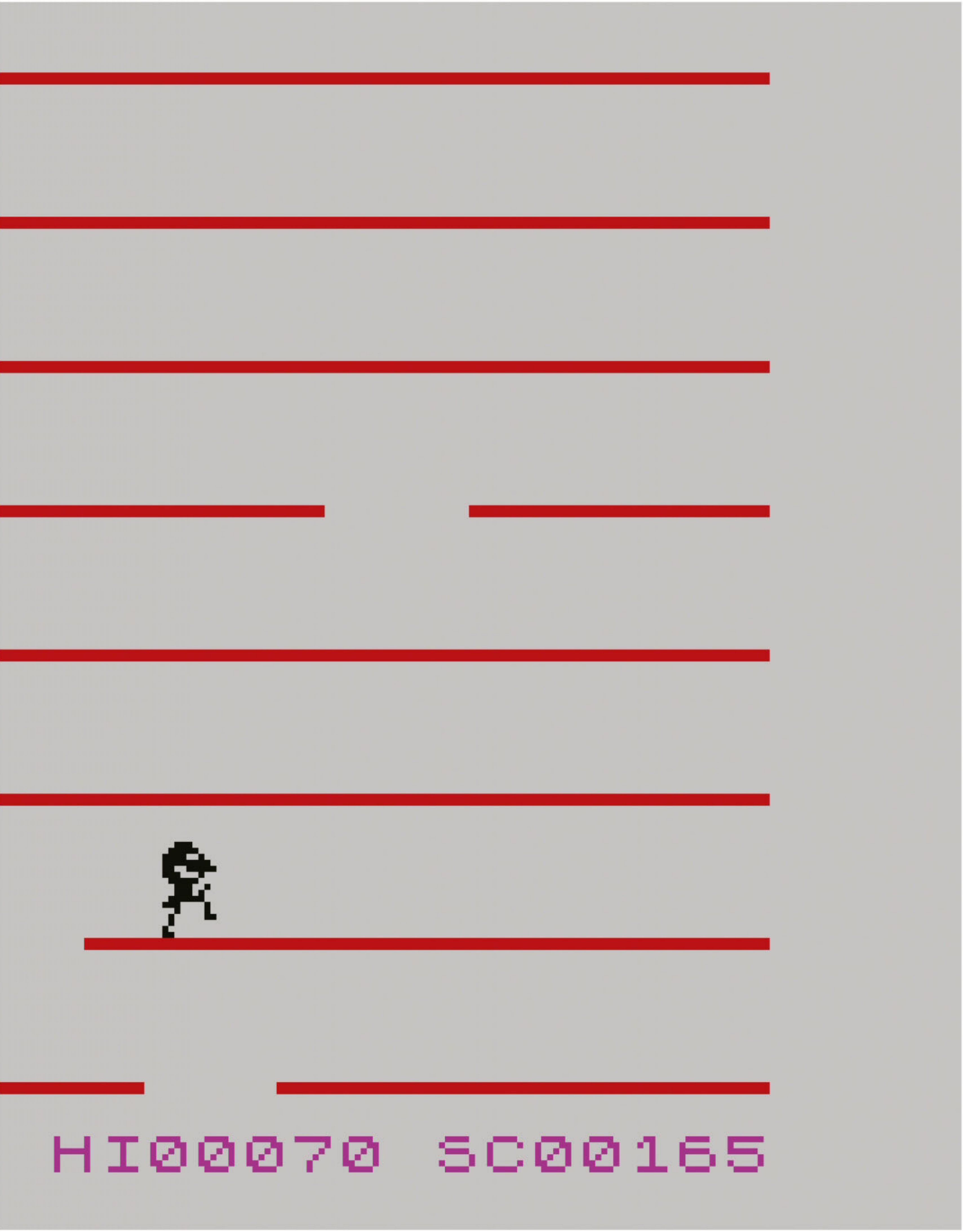
» ZX SPECTRUM » ALBERT BALL & STUART C BALL » 1983

After becoming prime minister, Benjamin Disraeli is said to have remarked, "I have climbed to the top of the greasy pole." I've never attempted to do such a thing, and quickly realised that a career in politics wasn't for me after a few years in the rank and file of a major party. Somehow, though, that feeling of trying to make progress against constant setbacks is a familiar one, and I think it's because of *Jumping Jack*.

Every jump adds another gap in *Jumping Jack*, and every gap is another chance to fall. So often I make it right near the top of the screen, only to suffer a misfortune and find myself tumbling down to the very bottom, losing a life in the process. And yet I'll pick myself up and try again, because that's what life is all about, isn't it? More starkly than most games, I feel like *Jumping Jack* is a metaphor for life itself. We scratch and claw, trying to reach our goals and make progress, yet ultimately we wind up dead on the floor after an undignified tumble.

At least, that's the justification I'd come up with if I were a different sort of games journalist – the sort of games journalist that is embarrassed to play a game without some sort of 'message'. *Jumping Jack* is just a fun arcade-style game that is still pretty compelling today, and there's nothing wrong with that, even if it does make me feel like I'm climbing a greasy pole sometimes. *




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THE **MAKING** OF

SONIC THE HEDGEHOG 2



IN 1992, **SEGA TECHNICAL INSTITUTE** WAS GIVEN THE TASK OF DELIVERING A NEW SONIC GAME, WITH A SHORTER SCHEDULE AND A TEAM DIVIDED BY LANGUAGE. **NICK THORPE** FINDS OUT HOW IT WAS PULLED IT OFF...

» [Mega Drive] Mystic Cave Zone is full of hidden traps, like these spiked platforms that emerge from the walls.



DID YOU KNOW?

The original plan for *Sonic 2* included the terrifyingly-named 'Genocide City Zone' – later renamed to 'Cyber City Zone'.

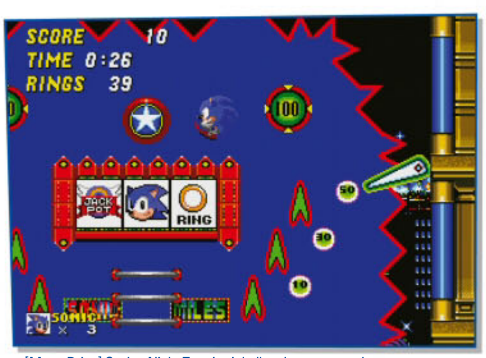


Instant success sure can be a curse as much as a blessing. That's why you hear so much about the 'difficult second album' or a 'sophomore slump' – it's tough to follow a breakout debut. *Sonic The Hedgehog* was most definitely a breakout success, propelling Sega from a minority player in the home console market right into competition with industry giant Nintendo. No matter how difficult it would be to create a successor, you'd imagine the company would be moving mountains to make sure it happened. So you might be surprised to find that the company had allowed one of the key staff behind the success of the game to walk away.

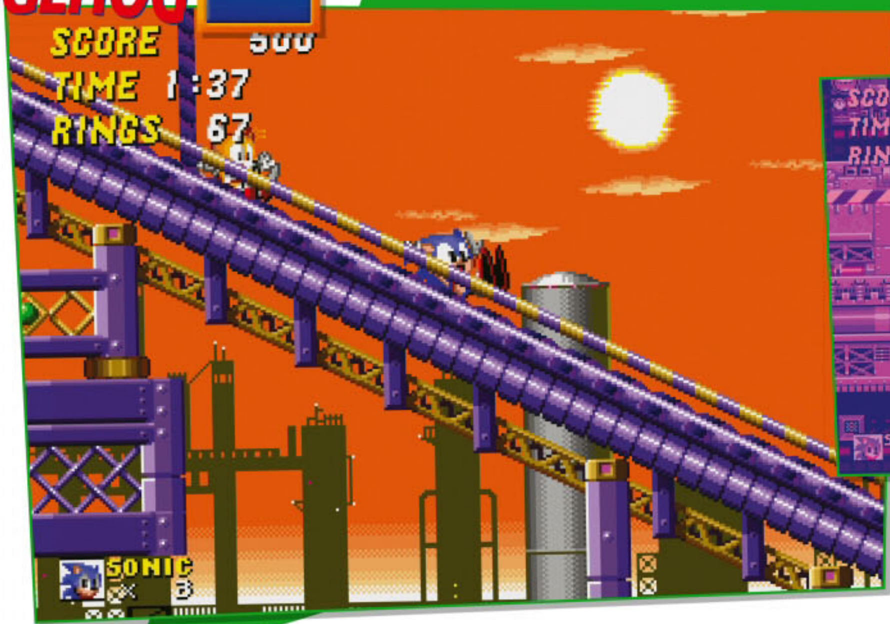
"In the year that I set up Sega Technical Institute, I was shuttling back and forth between the Silicon Valley home of STI and Sega headquarters in Tokyo," explains Mark Cerny, who was a programmer on *Sonic The Hedgehog 2*. "On one of these trips, I learned that Yuji Naka, who was the programmer and overall driving force beyond the first *Sonic The Hedgehog*, had quit the company on completion of the project. This was quite a bit of a shock. Naka-san was brilliant, and had spearheaded any number of consumer hits, everything from arcade conversions like *Out Run* to original titles such as *Phantasy Star*. He was as much of a star in the Sega universe as Yu Suzuki."

Mark wasn't about to let such a talented colleague disappear from the company and set about rerecruiting him. "It wasn't difficult at all to track down Naka-san, as I'd worked out of the same bullpen in Tokyo as he did for several years. His story was pretty simple: low pay, long hours, lack of appreciation and support from management. The pay issue was also quite simple: as an employee of the Tokyo headquarters, salary was based on seniority, and royalties did not exist." Still, this was something that Mark saw as an opportunity. "My pitch was that if he'd come to STI in the USA, we could compensate him much better. We didn't make any decisions as to what the next game would be, just that this time around, if he had a smash hit he would share financially in its success." The incentive worked, and Yuji Naka made the trip across the Pacific to join Mark's team. This allowed him to reunite with Hirokazu Yasuhara, the game designer on the original *Sonic The Hedgehog*, who had also moved from Japan to join Sega Technical Institute.

With two key members of the original team at the studio, the sequel project began. "We at STI were under the impression that *Sonic 2* was the obvious game to make," explains Mark. "So we pitched it as a 1992 holiday release, which would give us something like 11 months to do the game creation… and were told dismissively that 'it's much too soon' by one of the marketing execs." Apparently, this wasn't an uncommon problem. "It was frequently ▶



» [Mega Drive] Casino Night Zone's pinball action was popular enough to inspire the spin-off *Sonic Spinball*.





» [Mega Drive] Chemical Plant Zone was originally a late-game stage, which is why it's relatively difficult.

"AT THE VERY BEGINNING, I DESIGNED THE GAME WITH 'BLUE SKY' IDEAS"

Hirokazu Yasuhara



difficult to understand the relationship between the marketing team and the product development team," Mark continues. "For example, I can recall the same marketing exec dictating to the studio head exactly what game lineup to create – and yet, that plan only allowed for a five-month development cycle of some of the titles. Completely unrealistic, but that didn't stop the marketing exec from criticising the studio head as being 'uncooperative'."

This astonishing decision allowed the team to work on other concepts, and enabled Yasuhara to start dreaming big for Sonic's eventual return. "At the very beginning of the project, I designed the game with 'blue sky' ideas. When I made the original design, I thought we had about two years for the project," explains the designer. In recent years, he has shown off some of these ideas, including an ambitious time travel plot in which Robotnik takes over the world and Sonic must journey to the past to stop him – a concept which would later be explored in *Sonic CD*, which was developed by an entirely different team. "But after starting the project, the company forced us to change our schedule," the designer continues.

"Two months later, we were told that yes, we did need to create *Sonic 2* for 1992 holiday release," recalls Mark. "It wasn't much of a creative loss, in that we'd spent that time trying and failing to come up with a game concept as compelling as *Sonic*. But it did mean that instead of 11 months to create the game, we would only have nine months." It was a very high-profile project for a team that had only shipped two games previously. "It was very exciting. Actually, more like beyond exciting," remembers Craig Stitt, a level artist on *Sonic The Hedgehog 2*. "Surprisingly I don't remember feeling intimidated by it. Probably due to the fact I was young, naive. There was also a certain amount of confidence working with Mark Cerny, plus we had Yasuhara and Naka." While Craig wasn't feeling the pressure, the team was most definitely aware of the importance of the project. According to Yasuhara, "Sega was fighting against Nintendo with a 16-bit console battle at the time, so our team members understood that we were under big expectation from the market and Sega executives."

The team had a number of ideas of how to improve the game over the original. For a start, Sonic needed to be even faster. In the first game, his running speed was capped well below the maximum speed he could achieve – that would be lifted in the sequel. He'd also get a new move to help with this. "Almost all team members had naturally felt that Sonic needed the 'spin dash' after the release of the original *Sonic*," says Yasuhara. By crouching and pressing jump, the player would send Sonic into a spin, while still fixed in place. This could be further revved up by hitting jump again, and once the buttons were released Sonic would spin off in the direction he was facing, meaning that he didn't have to backtrack for momentum in order to tackle steep hills as in the previous game.

Another major addition to the game was the addition of multiplayer. According to Yasuhara, this was always part of the plan. "I wanted to give a friend for Sonic. So I implicitly imagined that *Sonic 2* would have two characters in it," explains Yasuhara. "If there were two characters in game, brothers and sisters could play at the same time." This character eventually developed as Miles 'Tails' Prower, a little fox. In regular gameplay, Tails worked under CPU control, with an AI routine that had him mimic Sonic's moves and attempt





» Mega Drive] Boss structures are more elaborate in *Sonic 2*, but they're rarely very challenging.

DID YOU KNOW?

Sonic Mania's Mirage Saloon Zone is inspired by a mocked-up desert stage seen in early *Sonic 2* images.



CRUNCH TIME

Thanks to the prototypes that have leaked out of Sega over the years, we can see exactly how the last couple of weeks of development played out…



Get Sonic to pilot the plane. We don't do animal cloning.

18 SEPTEMBER 1992, 2:26PM

- At this point the game is using a prototype title screen illustration.
- **All stages are implemented and ground layouts are complete.**
- Hidden Palace Zone and Wood Zone have had their stage graphics removed.
- **Sonic will die if he hits spikes during his post-damage invincibility.**



Who got through act 2? Hint: he's not a blue hedgehog. Fix it.

21 SEPTEMBER 1992, 10:06AM

- The finalised title screen is added to the game.
- **Emerald Hill Zone is made easier by adding rings and moving enemies.**
- Aquatic Ruin Zone is made easier by adding rings and deleting enemies.
- **Casino Night Zone's slot machines gain reward/penalty coding.**
- Mystic Cave Zone's object placement receives some minor adjustments.
- **Oil Ocean Zone's boss arena is broken (Sonic falls straight through oil).**
- Death Egg Zone boss is made harder.
- **Hidden Palace Zone's remaining enemy graphics and code are deleted.**
- Spike behaviour is corrected.
- **The Super Sonic transformation sequence is added to the game.**
- Special Stages 1-5 and 7 receive new some object layouts.
- **A rough version of Sonic's end sequence is added to the game.**

22 SEPTEMBER 1992, 4:47PM

- A trademark symbol is added to the game's title screen.
- **Aquatic Ruin Zone's layout is tweaked by moving pillars and changing the moving platforms around.**
- Hill Top Zone's layout is tweaked by moving rings and enemies.
- **Wing Fortress Zone is made easier by adding rings and moving items.**
- Wing Fortress Zone's boss is made easier (laser no longer destroys platforms).
- **Super Sonic's transformation sequence is corrected to check for Chaos Emeralds.**
- Ring requirements for Special Stages 2, 4 and 5 are decreased for Sonic and Tails.
- **Special stages are recoloured.**
- The staff credits sequence is added to the game's conclusion.

24 SEPTEMBER 1992, 5:27PM

- Oil Ocean Zone gains spikes beneath oil slides to fix a bug that causes Sonic to slide.
- **Metropolis Zone gains spikes above screw paths to fix a bug that embeds Sonic in the wall.**
- Wing Fortress Zone cutscene bug is fixed (Super Sonic no longer jumps to his death).
- **The invincibility sparkle effect is replaced with a new one.**
- Code is added to make Sonic/Tails lose their shields after passing an end of level signpost.
- **Tails gets his own continue icon.**
- Tails' ending is added to the game.
- **A bug is added to Super Sonic's ending, resulting in corrupted graphics.**
- Extra names are added to the staff credits.

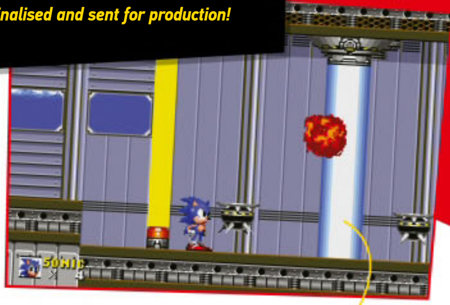
24 SEPTEMBER 1992, 7:25AM

- The finalised level select screen is added to the game.
- **Oil Ocean Zone gains spikes in various places to ensure players use pressure cannons.**
- Oil Ocean Zone's boss arena is fixed.
- **Metropolis Zone is made easier by adding extra checkpoints.**
- Metropolis Zone now sends players to Sky Chase Zone after Act 3, rather than Act 2.
- **Sky Chase Zone now features Sonic as the biplane pilot in Tails-only mode.**
- Death Egg Zone now properly clears checkpoint data, removing a frustrating instant death bug.
- **End-of-level graphics no longer mistakenly calls Tails 'Sonic'.**
- Super Sonic's ending graphics are added to the game.

25 SEPTEMBER 1992, 11:00PM

- New attract mode demos are recorded and added to the game.
- **The game is made harder by converting many extra lives to other items.**
- Casino Night Zone's flippers and Crawl enemies are moved to avoid crash bugs.
- **Oil Ocean Zone gains even more spikes to ensure players use pressure cannons.**
- Wing Fortress Zone is made harder by removing rings.
- **Death Egg Zone boss spawn point is moved to the far right of the stage.**
- Super Sonic's underwater colours are fixed.
- **Code is added to revert Super Sonic back to his normal form after passing an end of level signpost.**
- Special Stage 6 receives a new object layout.
- **Ring requirements for Special Stages 5 and 7 are increased for Sonic and Tails.**
- Ring requirements for Special Stages 3-7 are increased for Sonic or Tails alone.
- **Super Sonic's ending is fixed.**

Game is finalised and sent for production!



Does this feel a bit unfair? Maybe make it easier, guys.

29 SEPTEMBER 1992, 9:33AM

- The end post in Casino Night Zone is raised by a few pixels.
- **Ring monitors no longer cause the ring counter to glitch by ignoring the 999 ring cap.**
- Fixed bugs relating to interacting with certain objects while hurt.
- **Fixed a graphical glitch when using Teleport in 2P mode.**
- The spelling of Thomas Kalinske is corrected in the staff credits.

Game is sent out for production as Revision 01!



Who broke the end sequence? Put Sonic in the centre please!





ECHO BOOMS

The original Mega Drive game isn't the only way to play Sonic 2…

Like most of Sonic's early games, *Sonic 2* has had too many compilation and plug-and-play appearances to count. However, a few conversions have shown the hedgehog's second adventure a bit of extra love that might make them preferable to the original. The first is *Sonic Jam*, the *Sonic* compilation for the Saturn which includes his four Mega Drive outings. As well as allowing you to play the locked-on *Sonic 2 & Knuckles*, this game offers revised Easy and Normal difficulty modes in addition to the original game's layout. Time Trial and Chaos Emerald modes have also been added.

***Sonic 2* for iOS and Android, released in 2013, was ported from the ground up by Christian Whitehead and Simon Thomley. The game has new support for widescreen displays, achievements, and Knuckles included as standard. The biggest new feature in the game is an extra hidden stage – an exclusive finished version of Hidden Palace, with new graphics, new enemy attacks and a custom boss that actually ranks as one of the best in the game.**

Lastly, M2 developed 3D *Sonic The Hedgehog 2* for Nintendo's 3DS in 2014. This emulation adds a Ring Saver mode, which gives you ten free rings and lets you keep half of your rings whenever you get hit. Additionally, an unlockable Super Sonic mode lets you skip the special stages. The biggest addition here, however, is stereoscopic 3D, adding depth to the backgrounds that would be impossible to display on other systems.

▶ to catch up if he fell behind. However, a second player could grab a pad at any time to take control of Tails, giving little brothers and sisters the world over an invincible helper character with which to get involved.

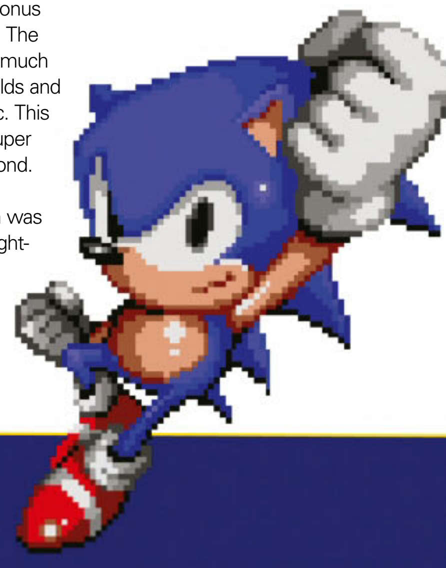
Co-op wasn't Tails' only use. "Naka-san pulled off some technical magic and created a split-screen racing mode which turned out extremely well," recalls Mark. This used the Mega Drive's rarely seen interlaced mode to present a squashed but fully-detailed play area for both players, allowing them to compete across a limited selection of stages,with the winner determined across the best of three categories (fastest finish, most rings collected and most item monitors broken).

"We knew we needed a flashy bonus stage – and ended up creating a pseudo-3D dash down a half-pipe," explains Mark. This can largely be credited to Tim Skelly, who produced the 3D renders which gave the stage its rollercoaster feel, with additional graphics by Yasushi Yamaguchi and stage design by *Shinobi* director Yutaka Sugano. "Certainly, it was visually exciting, though I never could shake my feeling that the gameplay had been deeper in the rotating bonus stage in the first *Sonic* game," Mark confesses. The reward for beating all of the special stages was much more memorable – with all seven Chaos Emeralds and 50 rings, Sonic could transform into Super Sonic. This golden version of our hero gained permanent super speed and invincibility, but lost one ring per second.

Sonic 2 also needed to be bigger than its predecessor. Thankfully, in this regard, the team was given a big boost as it was allowed to use an eight-megabit cartridge, which was twice as large as that used in the original game. This primarily allowed for more variety – *Sonic 2* wasn't much longer than the original game, but it had more of everything, including animations,

DID YOU KNOW?

The manual for *Sonic 2* actually shows the title screen used in prototypes, rather than the one used in the finished game.





» [Mega Drive] After the impressive loops of the first game, Sega upped the ante with corkscrew paths.

» [Mega Drive] Item boxes give random items in multiplayer mode – and sometimes, even negative ones.



"TO BE HONEST, WE HAD GOOD TIMES, AND A LOT OF NOT SO GOOD TIMES"

Craig Stitt

enemies and even music. This was once again provided by Masato Nakamura, the composer of the original game's music and the bassist for the popular Japanese band Dreams Come True. The game's music was being written at the same time as *The Swinging Star* – an album which would set the record bestselling Japanese album. You can hear this in *Sonic 2*'s ending theme and the song *Sweet Sweet Sweet*, which both use the same melody.

Compared with the original game, almost twice as many unique stage themes were featured in *Sonic 2*. These were lifted straight from the time travel plot, but shorn of context – Hill Top Zone's dinosaur enemies make a lot more sense when you learn that it was meant to take place in the ancient past, and Chemical Plant Zone definitely would have fit a future in which Robotnik had taken over the world. Casino Night Zone also came from that 'bad future' concept and was a real standout, thanks to its slot machine and pinball mechanics. "The high concept of *Sonic* is 'speed'," explains Yasuhara. "When I used spring gimmicks in *Sonic*, I noticed they were similar to pinball tables and flipper gimmicks." Similarly, the gameplay changed in Sky Chase Zone, which saw Sonic riding the wings of a biplane on the way to Robotnik's Wing Fortress. "I guess the idea of Sky Chase Zone was inspired by Hayao Miyazaki's anime movie *Future Boy Conan*," Yasuhara tells us.

With all the extra content required, the creation of *Sonic 2* naturally involved many more staff than the original game. However, due to the circumstances at Sega Technical Institute, both Japanese and American developers were involved. "The original plan had involved about a dozen members of the Tokyo game development team forming the backbone of the STI organization, but Sega headquarters fumbled the immigration process and all visas were denied," reveals Mark. "Sega had actually applied for O-1 expert visas for the team – these are for 'nationally or internationally recognised' individuals with 'a record of extraordinary achievement.' So Naka-san would (and did later) qualify for one of these, but not the 23-year old artist they wanted to send over. Sega was actually blacklisted by the American embassy in Tokyo for a while after this!"

As a result, the studio was primarily staffed by American developers prior to *Sonic 2*. "While that was fine for the projects such as *Dick Tracy* or *Kid Chameleon*, it created challenges when trying to create a game that needed to hit the quality level of *Sonic 2*," says Mark. "This was made worse by language issues and cultural issues. The Japanese and American staff could barely talk to each other, and though I was hoping a mentor/mentee relationship would develop between the more senior Japanese members and junior American members, it never happened."

"To be honest, we had good times, and a lot of not so good times. I don't think there was a lot of 'learning' going on for the most part," says Craig of the mixed team. "Yasuhara was an easy person to work with and I never felt he looked down on the Americans on the team. Yamaguchi was also easy to work with. On the other hand, Naka was an arrogant pain in the ass. He had no interest in working with any of the Americans."

"I remember that the most difficult issue was unification of art style," says Yasuhara. "Lead artist Yasushi Yamaguchi tried to check all of his teammates' art styles of stages and enemies at the same time, while drawing his own stages, enemy designs and animations. The original team member Jina Ishiwatari also came to help his work, but Yasushi still didn't have enough time to sleep." This is an issue that Craig also recalls. "There were a *lot* of problems meshing the art from the American artists with Yamaguchi's," the artist confirms. "Not only was Yamaguchi's art incredible, he was a machine. He worked incredible hours ▶



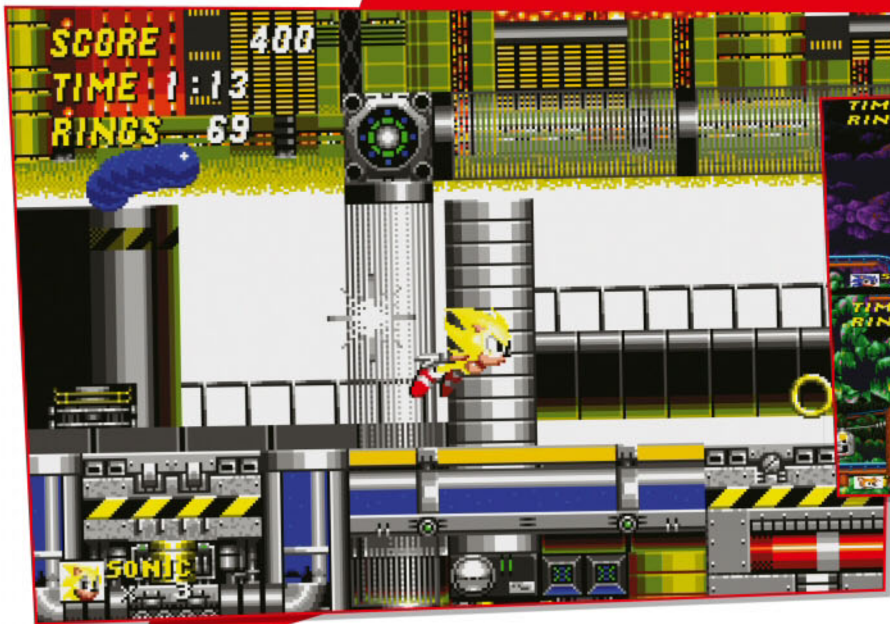
» [Mega Drive] The popular half-pipe special stage has been frequently reused throughout the *Sonic* series.

DID YOU KNOW?

Sonic 2's cheat codes refer to dates – the level select is Yuji Naka's birthday and the debug mode is Sonic 2's birthday.



SONIC THE HEDGEHOG 2







» [Mega Drive] It's important to pick up rings and smash item boxes as well as finish first.

"I REMEMBER A LOT OF ANGRY ARTISTS FINDING OUT THEIR LEVELS HAD BEEN CUT"
Craig Stitt



DID YOU KNOW?
Due to misplaced rings, it's impossible to get a Perfect Bonus in the second acts of Aquatic Ruin Zone, Casino Night Zone, Mystic Cave Zone, Oil Ocean Zone and Metropolis Zone.

▶ and reworked and perfected his levels over and over aga n. I think the one that went to through the most changes (that I remember) was Chemical Plant Zone. I would come in one day and it would be beautiful… then come in the next day and it would be completely different and even more beautiful."

Craig's work wasn't immune to this problem. "Besides the infamous Hidden Palace Zone, I also did Oil Ocean Zone," he explains. "With Oil Ocean, if I remember right, Yamaguchi came in and redid the distant background. That kind of hurt, but I couldn't argue because I didn't like what I had come up with." This problem also reared its head with Craig's other stage. "The same is true with Hidden Palace. The foreground art is still some of my favourite, and I think fits in the *Sonic* universe beautifully, but the background… I *hate* and was never happy with. I was hoping Yamaguchi would be able to rework it as well, but that never happened." Despite being one of the first stages implemented in *Sonic 2*, Hidden Palace Zone was ultimately dropped due to time constraints.

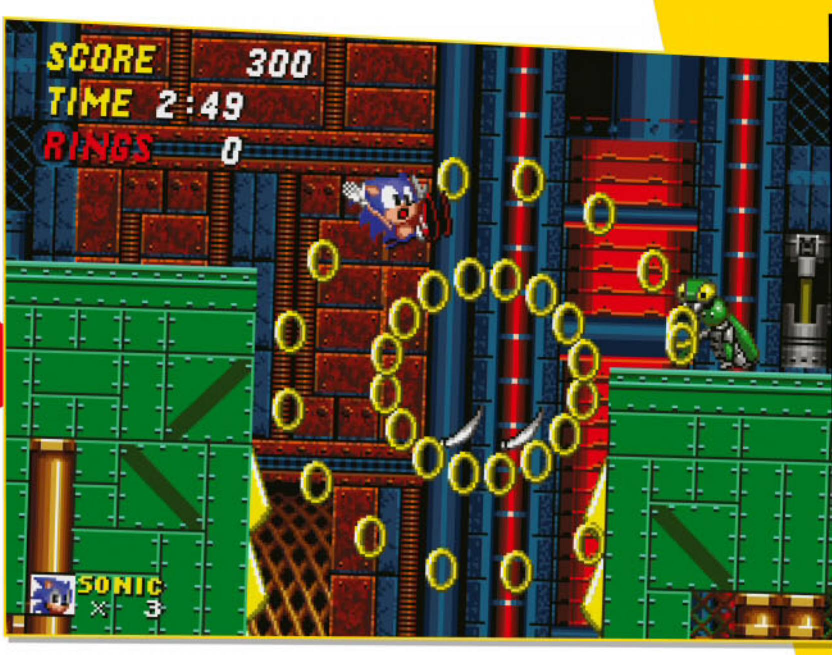
In fact, that's one of the most notable things about *Sonic 2* – despite the short development time, a huge amount of the content created for the game never made it in. "There was a *lot* of wasted/unused art in *Sonic 2*, more so than any other game I've worked on… at least for any game that actually shipped," Craig recalls. "I remember a lot of angry artists finding out their levels had been cut. I was among those when I found out Hidden Palace had been cut… well, sort of cut." As it turns out, the brunt of the cuts were made to the work of the American staff. "I was one of the lucky American artists that actually got any of their levels put in *Sonic 2*," Craig says. "Looking back at it, I'm not sure if I wasn't the *only* American to end up with any levels in *Sonic 2*…"

Part of the problem, according to Yasuhara, was that there simply wasn't enough time to implement everything in the game in the nine month development period. "At the development time, we didn't have enough time to sleep. I just dived and lived in the *Sonic 2* world," explains the game designer. "I did choose some new gimmick ideas to drop off, but the underlying reason was always because development time was short." Were there any ideas that he was sad to lose? "All of them," he responds. "If I can, I'd like to make my original version of *Sonic 2*."

Development continued at a frantic pace right up until the deadline, with bugs being squashed left and right, presentational polish being added and difficulty being adjusted. *Sonic 2* only actually became playable from start to finish within the last 48 hours before the first retail-ready build of the game, and even that build had enough problems that it was only used for the earliest cartridges, with a revised ROM built a few days later.

Sega made a major event of *Sonic 2*'s release. The hype machine had started up early in 1992 with a few mocked-up screens based on the existing art assets. In the summer, a special prototype version had been sent to Nickelodeon to feature on the show *Nick Arcade*, where *Clarissa Explains It All* star Melissa Joan Hart memorably struggled to get to grips with the game. All sorts of promotional items were sent to retailers, including dry-erase boards to count down to the release date and T-shirts to give away as preorder gifts. A holographic cartridge label was even considered, but ultimately scrapped due to cost.

However, the biggest deal was the near-simultaneous worldwide release of the game – a true rarity in that era. It was a massive undertaking, with air freight required to get the game to all retailers on time. Even this was celebrated – Sega Of America produced stickers commemorating "The Great *Sonic 2* Shipment" with Emery Worldwide, while 50 Sonics greeted the three chartered planes carrying copies of the game at Heathrow Airport. Japan received the game on 21 November 1992, while North America

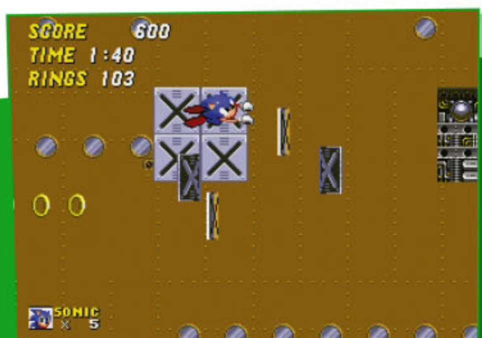




and Europe received it on 24 November 1992 – a date Sega referred to as "Sonic 2sday," and one conveniently placed just in time for Thanksgiving and the run up to Christmas.

When it came time for review, *Sonic 2* dazzled the critics. *Sega Power*'s 89% score was the low end of the consensus, with Dean Mortlock commenting that, "*Sonic 2* is effectively how the first *Sonic* should have been done." *Sega Zone* awarded the game 92% and *Mega Drive Advanced Gaming* gave 93%. *Mega, Sega Pro* and *CVG* all landed on 94%, with *CVG*'s Paul Anglin commenting that, "The levels are absolutely massive, with so much to do and so much to find that you'll bust a gut trying!" *MegaTech* went one per cent higher with 95% and *Mean Machines Sega* one point higher still with 96%. At the top, *Sega Force*'s reviewers gave *Sonic 2* an astonishing 97%, with reviewer Chris Knight saying that the game had "the kind of graphics and totally addictive gameplay most developers would kill for".

GamesMaster was the only major critical outlier – in fact, its 65% score for the game is the most memorable aspect of the magazine's first issue. The main bone of contention was the game's difficulty. "I managed to complete all the levels in one evening – using just one continue," commented writer Andy Lowe. "The first was dead easy to complete and so is this. There's just no challenge involved in *Sonic 2*, so it becomes a bore and a real let down," added Les Ellis. Other critics were split on the issue. In *Mean Machines Sega*, Julian Rignall assessed the game as being, "Much, much tougher than the original. There's no way even *Sonic* experts could call this easy!" Contrasting this view was *CVG*'s Tim Boone, ▶



» [Mega Drive] Our hero clings to the side of Wing Fortress Zone for dear life as parts peel off in the high winds.

RAIDERS OF THE LOST ART

Sonic 2 generated a legendary amount of unused stages, enemies and animations – here's a selection

HIDDEN PALACE ZONE

■ This area was meant to play a pivotal role in the original plot, and was one of the first stages added to the game. Nothing was added to the in-game version after the summer of 1992.





WOOD ZONE

■ As far as we can tell, this dense forest stage didn't make it too far before being scrapped – it only features in one prototype build, featuring no enemies and slightly broken collision.

CASINO NIGHT ZONE

■ The pinball-style stage originally sported a drastically different look, based around neon colours and card suits. It would ultimately be completely redrawn.





SPEED BUMP

■ In the earliest leaked build of *Sonic 2*, the blue hedgehog would actually be hurt if he stumbled into it at high speed! Imagine if that made it into the final game...

TITLE SCREEN

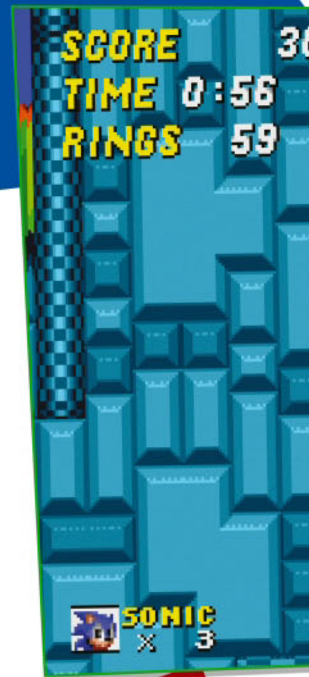
■ The original title screen for *Sonic 2* was similar to that of the first game, featuring the first stage's scrolling background. This title logo did appear in the 8-bit versions of *Sonic 2*.



OTHER SPRITES

■ Lots of enemies and items also went unused...





TAILS, YOU WIN

We examine Sonic's foxy friend and his own star turns

Designed by Yasushi Yamaguchi as the companion that *Sonic 2*'s two-player design required, Tails has become one of Sonic's most iconic friends. As the story would have it, young Miles Prower was a bit of an outcast amongst his peers due to the unique twin tails that gave him his nickname, and he started following Sonic around to become as cool as his self-assured hero. This was something Sonic came to accept, even when Tails followed him into battle against Robotnik.

In the 25 years since his debut, Tails has become known as the clever and rational gadget expert amongst Sonic's friends. His most famous ability is flight, achieved by spinning his tails around at high speed in helicopter fashion. However, while this ability is shown in *Sonic 2* when Tails tries to catch up to Sonic, a player-controlled version of this trait wasn't introduced until later *Sonic* games.

Despite being a bit of a pest (particularly when he'd lose your rings in the Special Stage), Tails became one of Sonic's best-loved companions, remaining present even during a recent push to de-emphasise Sonic's ever-expanding entourage. What's more, he's starred in more spin-off games than any other *Sonic* character.

TAILS AND THE MUSIC MAKER

SEGA PICO



■ The sidekick's first starring role was in an edutainment game for Sega's oft-forgotten kids' console. Children should be able to learn about basic musical concepts and instruments, with some light platforming and pinball action thrown in to keep things on-theme.

TAILS' SKY PATROL

GAME GEAR



■ Originally exclusive to Japan, this shoot-'em-up has since appeared on many compilations. Tails must defeat the evil Witchcart, who turns her foes into crystals with magic. Don't let the cutesy graphics fool you – this is a game which will have you tearing your hair out in frustration.

TAILS ADVENTURES

GAME GEAR



■ This platform game is easily the best effort in Tails' solo career. Trading speed for smarts, the game has a heavier puzzle emphasis than Sonic's platform games. Tails has to use bombs to attack, and a variety of gadgets are required to complete stages and defeat the Battle Kukku army.

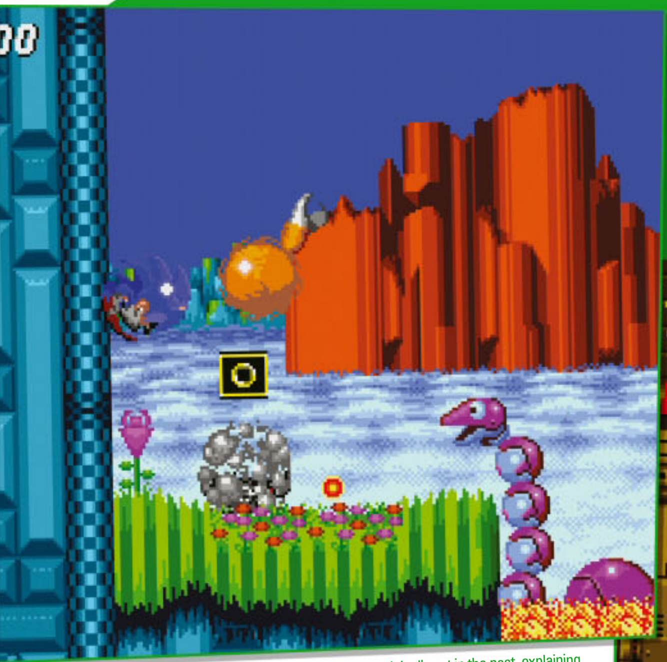
> **"I HAD THE FEELING THAT SONIC IN THE SCREEN WAS REAL DURING DEVELOPMENT"**
> Hirokazu Yasuhara

▶ who felt that only limited improvement had been made stating, "Initially it's not that much harder than the first game, but things do improve on later stages." In *Mega*, Neil West felt, "*Sonic*'s only Achilles heel is the lack of real challenge."

Concerns over the game's difficulty didn't stop players from rushing out to buy *Sonic 2*. Over 6 million copies of the game were sold, putting it behind only the original game as the second-best selling Mega Drive game of all time. A sequel soon went into production, but the unique mix of Japanese and American staff would definitely not be repeated. "While I felt, as a whole, we had worked well together (and I may be biased because my art made it into the game), it was clear that Naka did *not* feel the same way," explains Craig. "At one point I was told that for *Sonic 3* I would be the senior artist (you can imagine how excited I was at the prospect of that!). But Naka said that he refused to do *Sonic 3* unless he had an entirely Japanese team. Not only that, he wanted a separate set of offices for 'his' team with their own keycards so no one else at Sega Technical Institute



» [Mega Drive] In Sky Chase Zone, Sonic and Tails track Robotnik's heavily defended airship in a tiny biplane.



» [Mega Drive] Hill Top Zone was originally set in the past, explaining the presence of this dinosaur-themed foe.



» [Mega Drive] Before the final boss, Sonic must confront a deadly robotic doppelganger.



could come into their office." Craig and the other American staff would instead go on to work on the spin-off *Sonic Spinball*.

Mark had already moved on from Sega by that point, but had also caught wind of the split between Japanese and American staff at Sega Technical Institute. "Ultimately, of course, it was my responsibility to foster these relationships, and I really regret that I didn't devote more time and attention to bridging the cultural divide," he laments. For Yasuhara, who stayed on to work on *Sonic 3*, it was a good idea executed in the wrong environment. "I think trying to establish a multicultural team was meaningful, but it should not be done for a project with a very tight schedule," explains the designer, who would ultimately stay in the USA for the majority of his career.

Despite the discord, there's no denying what the team accomplished. *Sonic 2* was a huge sales success and is considered a true classic. When **Retro Gamer** readers voted on the top 150 games of all time in 2015, it reached 14th place, higher than any other game in the Sonic series. With that in mind, we asked the staff why they thought *Sonic 2* surpassed the original.

"Certainly, that's flattering to hear, but I don't have much of an explanation," says Mark, who isn't actually so sure that the sequel was better. "With *Crash Bandicoot*, or even *Uncharted*, the sequels were definitely better than the first titles. You could call it 'growing pains' – the first games had many missteps, and much was learned that could be applied to the sequels. But *Sonic The Hedgehog* wasn't like that, it was simply magical. I remember the first time I played *Sonic*, it was fresh and fun and beautiful. I think my favourite moment was the rising water sequence, it was a near-perfect blend of technology, art and animation. So I guess my opinion differs. Still, *Sonic 2* was a very nice game and I'm grateful to have been able to be part of its creation."

For Craig, it comes down to how the pressures of game development limit first-time developments, something he would later experience with his own platform game hero. "I've found with many games, the second game is better than the first," explains the artist. "Kind of regardless of how good the first game is, the second is a little (or a lot) better. I believe the reason for this is because the second game is actually the game the developers *wanted* to make the first time, but didn't have time or the technology. I found this to be true with *Spyro The Dragon*. Most of the cool things in *Spyro 2* we wanted to have in the original *Spyro The Dragon* but ran out of time (like Spyro being able to swim)," he continues. "Little things get added in the second game that really add a lot to the gameplay (like Sonic's spin-dash) and the look of the game is finally solidified."

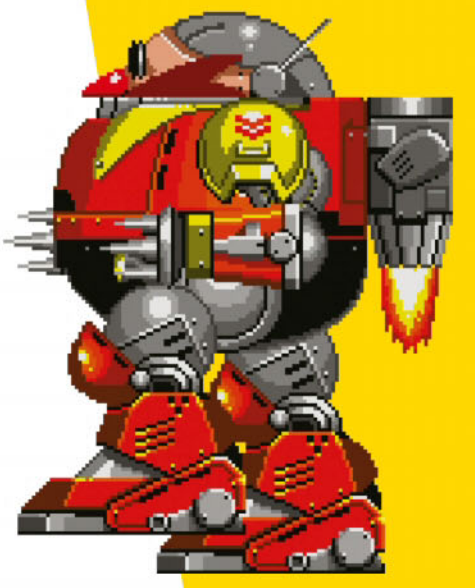
But for Yasuhara, the ongoing popularity of the game brings to mind a surreal experience during development. "I had sometimes gotten the feeling that Sonic in the screen was living and real during game development. I had felt I needed to give him more stages and more gimmicks so as not to make him bored. Maybe it was the lack of sleep, but then again I think sometimes such a sort of calling comes when the character has 'magic' unintentionally," the designer recalls. "I think Sonic himself felt happy playing with you, and that's why you chose *Sonic 2* even after so many years." And maybe it's a bit sentimental of us, but we think back to the children we were when we first played *Sonic 2*, that's how we felt too. ✱



» [Mega Drive] Tails suffers a setback as Sonic speeds ahead in the two-player racing mode.

DID YOU KNOW?

The first hints of Dr Robotnik's original Japanese name 'Eggman' were seen here, as his name is painted on the side of the Wing Fortress.





X

Before Star Fox, Nintendo and Argonaut teamed up to create a hardware-pushing shooter for the Game Boy

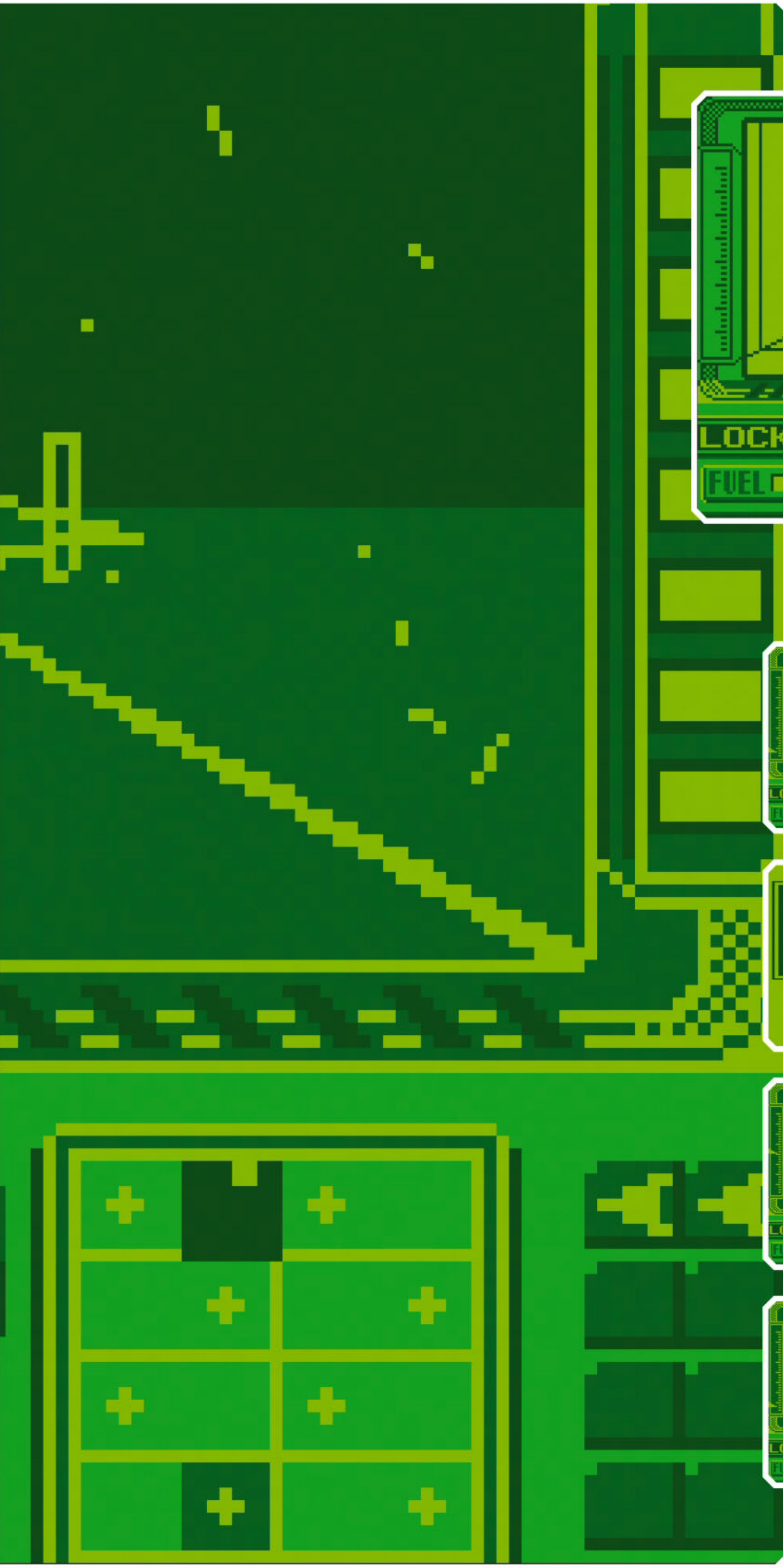
» **PLATFORM:** GAME BOY » **DEVELOPER:** NINTENDO R&D1/ARGONAUT SOFTWARE » **RELEASED:** 1992

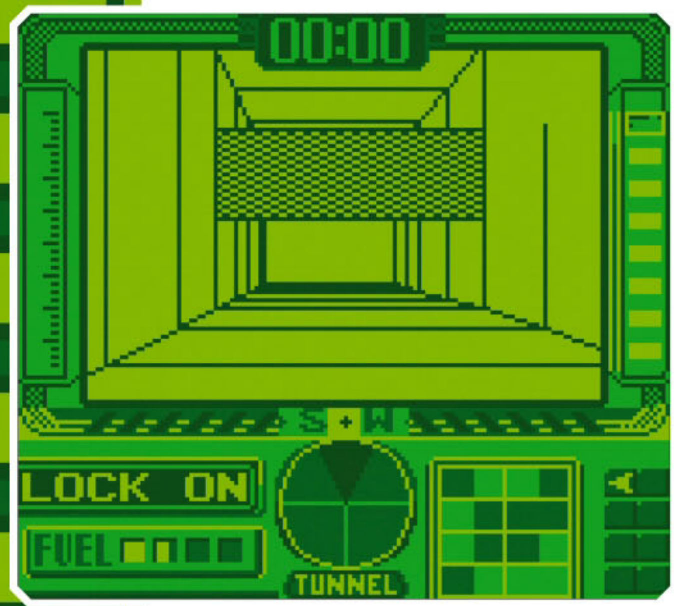
Having had success in 3D on limited home computer hardware, it's no surprise that Jez San and Argonaut would look to bring that approach into the console world – and in the early Nineties, few viable platforms were as limited as Nintendo's 8-bit consoles. The NES was 1983 hardware, and the Game Boy didn't have a colour display to aid the illusion of depth. After demonstrating 3D on the NES, 19-year-old programmer Dylan Cuthbert got to work on a 3D Game Boy game for Mindscape.

Despite having already signed a publishing deal for the game, Jez San took prototypes of the 3D games to CES and showed them to Nintendo. The Japanese company was so impressed that it immediately bought the rights to the game from Mindscape, and assigned the Argonaut staff to work with Gunpei Yokoi's R&D1 team. The game was renamed from *Lunar Chase* to *X* at the behest of Nintendo president Hiroshi Yamauchi.

X takes many cues from Argonaut's earlier hit *Starglider,* with clear repeated design elements such as the rotating tunnel entrances. The wireframe 3D allows for full freedom of movement, with the player predominantly ground-based, but able to take the air as long as they have sufficient fuel. There are also indoor tunnel flight sections which require the player to follow a set path and dodge objects. Enemies exist both on the ground and in the air, but typically shooting them isn't the main focus of your efforts. The game is broken down into a number of distinct missions, each introduced by a wireframe general whose mouth moves as he speaks.

Despite the technically impressive nature of *X,* Nintendo chose not to release the game outside of Japan. We'll never quite understand that decision – it's a very good game that shows just how much you can do with an 8-bit CPU and only four shades of colour. However, Nintendo and Argonaut would go on to do much bigger and more memorable things together in the realm of 3D shoot-'em-ups. Nine months after the release of *X,* Argonaut and Nintendo would release the Super FX-enhanced *Star Fox* for the SNES, going well beyond the wireframe visuals possible on the Game Boy with the use of solid 3D polygons. *





HOW IT PUSHED THE LIMITS. . .



3D In Your Pocket

It's astonishing to see a wireframe 3D game on the Game Boy at all, let alone one that runs as smoothly as *X*. The machine does occasionally struggle to keep up during complex tunnel scenes, leading to some screen tearing.



Multifaceted Missions

Rather than being a blaster, *X* requires you to take on a number of specific missions. These include search-and-destroy tasks, hostage rescue, base protection and more, and it can evolve during play.



Full Flight

X is a fully-3D experience, as you can lift off and take flight whenever you find a suitable ramp to launch from. You will also encounter airborne enemies, capable of sending you straight back to the floor with a nasty bump.



Clever Control

Despite the lack of buttons on the Game Boy, *X* has a complex control scheme which allows for full 3D movement on the ground and in the air, a primary weapon and various secondary weapons, and even the ability to use a map.



COLLECTING ULTIMATE PLAY THE GAME

MARTYN CARROLL REVEALS EVERYTHING YOU NEED TO KNOW ABOUT COLLECTING ULTIMATE PLAY THE GAME TITLES AND HIGHLIGHTS THE MOST SOUGHT-AFTER RELEASES THAT'LL MAKE YOU WEEP



In August of this year a sealed copy of Ultimate's *Nightshade* for the ZX Spectrum was auctioned off on eBay for an eye-watering £311. At the same time similarly pristine copies of *Knight Lore* and *Alien 8*, also for the Spectrum, sold for £305 and £215 respectively. These were the highlights of more than 30 lots from the same seller – someone who was offloading a treasure trove of 'as-new' Ultimate Play The Game titles that were still in their original shrink-wrapping. *Entombed* for the Commodore 64 went for £104 and a copy of *Imhotep* for the same format fetched £90. *Atic Atac* and *Sabre Wulf* for the BBC Micro sold for £84 apiece, while the Amstrad CPC version of *Sabre Wulf* reached £70.



» [ZX Spectrum] The classic *Sabre Wulf*, the first of Ultimate's games to retail for £9.95 rather than the usual £5.50.

The story behind these lots is an interesting one. The seller was Huw Ward, who had worked in-house at Ultimate from its earliest days, initially as a game tester. He revealed on Twitter that he uncovered the games while clearing our his parents' loft and listed them on eBay (with his auctions starting at £9.95, a nod to the RRP of Ultimate's titles during the mid-Eighties). Huw was "shocked" at how high some of the bidding went, but anyone who has an interest in retro collecting knows that the Ultimate games have always been popular. The Ultimate label was hugely respected back in the day, so it's hardly surprising that when gamers revisit the 8-bit scene many are drawn to the Ultimate titles.

Ultimate published more than 20 games between 1983 and 1987 (with the last two years under the ownership of US Gold). 16 of these were initially developed for the Spectrum and most were then ported to other machines, including the BBC Micro, Amstrad CPC and Commodore 64. The C64 also received six exclusive games that were not ported to any other format, bringing the total number of individual Ultimate titles to 22 – a very attainable target across two formats. Obviously if you wanted to collect releases (including rereleases) across all formats then your task will be much trickier.

Spectrum fans may be content collecting the 16 titles for their machine, but the wider range does feature some tempting releases. The first six Spectrum titles were released in single cassette cases, yet when *Jetpac* and *Atic Atac* were later released for the BBC Micro they were presented in the big box style packaging that didn't become







» An early advert showing off Ultimate's early games. Note the cheaper £5.50 price point.

» [ZX Spectrum] Lunar Jetman isn't quite as good as Jetpac, but it's no less collectible.

the norm on the Spectrum until the release of *Sabre Wulf*. On the subject of *Sabre Wulf*, the cover art used on the various ports was different (and preferable) to the Speccy original thanks to the addition of the golden 'Wulf' amulet. There are other artwork variations to consider too, such as the different colour schemes used on the various versions of *Knight Lore* (the Spectrum version is orange, the BBC version is green and so on). Even more enticing are the *Alien 8* covers where the Spectrum, BBC Micro and Amstrad CPC releases all feature an exclusive variant of the main artwork. Fans of Tim Stamper's illustrations will surely want to collect all three.

So what can you expect to pay for Ultimate titles? As you might expect the Spectrum releases go for the most money. Huw Ward's auctions illustrate this nicely, with Speccy *Nightshade* hitting £311 yet the same game in the same mint condition only fetching £67 on BBC Micro and £48 on Amstrad CPC. However, many of the Spectrum releases can be picked up quite cheaply. The early single cassette titles typically go for £5-£7, while the later big box releases (*Sabre Wulf*, *Underwurlde*, *Knight Lore* etc) are valued at £10-£15. It's the later titles from 1986 onwards

ULTIMATE HOARD

When he's not writing about retro games, Richard Burton is stockpiling 8-bit games in his attic…



How complete is your collection of Ultimate games?

I'm not sure if it will ever be complete as I collect official and unofficial releases from all around the world. This includes interesting bootleg copies and variants, and I'm finding new ones all the time. I have a few complete sets of UK releases across all formats and I'm also working towards a complete set of sealed UK releases. Outside of the UK there are a few European releases from companies such as ABC Soft, Investronica, Erbe, Dro Soft, Microbyte, Svenska Soft Service, Aackosoft and Monser that I'm still looking to find. Japan and Brazil also have their fair share of elusive Ultimate oddities from Plan Soft, Topia and Licantropo.

How did you manage to acquire so many sealed copies?

I've 200 or so sealed Ultimate games that I've sourced from a variety of places over the years – former Ultimate employees, online auction sites but mostly from old warehouse finds. One particularly fruitful find was from a warehouse in Finland following a chance conversation with a Spectrum games collector. He knew of a former shop warehouse that had a large quantity of brand-new unopened stock and after a spot of trading, we came to an arrangement for the Ultimate games. Several years back there was also a couple of large finds in the UK which yielded a good supply of brand-new software including Ultimate titles.

What's the most you've spent on your collection?

The most I've spent on a single Ultimate-related title is £225 for a Dingo arcade board. This 1983 coin-op was one of the earliest Stamper games designed as Ashby Computers and Graphics. I picked it up about ten years ago. The game itself has got a distinctly Spectrum vibe to it, with backgrounds reminiscent of *Sabre Wulf*.



» Richard's hoard of sealed Ultimate games is extremely impressive. It's also worth a fair bit of cash, too.

For you personally what's the appeal of collecting Ultimate titles?

Ultimate's secrecy and air of mystery surrounding its software releases was something that made the company very easy to like. The large black box releases stood out from other games and made them instantly collectable. Other companies emulated this approach yet for me the main pull was the cover artwork and inlay copy. Tim Stamper's art elevated the games and the minimalist instructions were more intriguing than factual. Apart from David Rowe and Steinar Lund's inlay artwork for Quicksilva, I can't think of any other illustrations that add to a game's appeal as much as Tim Stamper's do.

Do you think all the Ultimate mysteries have now been laid to rest, or do you believe there are still some secrets to be revealed?

Until the Stampers decide to give us a definitive answer as to whether development on *Mire Mare* was started, aborted or completely finished, the conjecture and debate will remain, and this in turn will continue to perpetuate the Ultimate mystique that fans love. I would bet that there are still a few secrets tucked away in the Stamper vaults that no one other than them knows about.

» Some of the weird and wonderful overseas releases which Richard has acquired over the years.







TOP TEN RARITIES

If you're serious about collecting Ultimate titles then these should be on your radar



JETPAC

ZX SPECTRUM

■ Yes, *Jetpac* for the Spectrum, but not the common release most of you will be familiar with. This is for the first issue that simply states "Sinclair ZX Spectrum" on the inlay. This was soon changed to "For the 16 or 48K RAM Sinclair ZX Spectrum". Fans are drawn to the 'original' version and so the price is quite a bit higher. You can expect to pay £20-£25 for it.

NIGHTSHADE

VARIOUS

■ The first title to use Ultimate's Filmation II system is not one of its best-remembered releases, but it remains popular in collecting circles. On the Spectrum, it hovers around the £20 mark, going higher or lower depending on condition (time is not kind to cardboard, after all). On other formats it fetches slightly less, but is still desirable.





PENTAGRAM

ZX SPECTRUM, MSX

■ With *Mire Mare* a no-show, this was the final Sabreman game and it's easily the most sought-after. It was released in a standard double cassette case rather than a big box, but this doesn't deter collectors who are willing to pay £30-£40 for the Spectrum version. The MSX version is less common but less coveted, fetching £25-£30.

MARTIANOIDS

VARIOUS

■ This game proved more than any other that Ultimate's star had fallen. It sold poorly so now it's a hot collectible of course! On the Spectrum it typically goes for around £50 and doesn't drop off too much on other formats, with the MSX and CPC releases both valued at £30-£40. One to admire on a shelf rather than load up and play.





BUBBLER

VARIOUS

■ This was Ultimate's final game (despite it ending with a "To be continued" message) and it commands the highest value of all the regular releases. It goes for as much as £80 on the Spectrum and £40-£50 on MSX and CPC. There's also an scarce CPC disk release which hardly comes up for sale and is probably worth mega money.



IMHOTEP

COMMODORE 64

■ This C64-exclusive received scathing reviews when it was released (*Zzap!64* awarded it a miserable 20%), but it has fared better as an Ultimate collectible. That said, its value has fallen over the past ten years, dropping from £35-£45 to £20-£25. Its value is unlikely to drop much further so now would be a fine time to grab yourself a copy.

UNDERWURLDE / SABRE WULF

COMMODORE 64

■ This double pack disk release for the C64 was only available in the US, and only then to those who bought the tape versions and sent off the enclosed card to receive the pack via mail order. It's uncommon so value is difficult to gauge, although we can safely say you wouldn't get much change from £50.





ALIEN 8

MSX

■ The four Japanese MSX releases will always be collectable. The two Dexter Soft releases, *Knight Lore* and *Nightshade*, are hard to find complete, but it's the two Jaleco releases, *Alien 8* and *Gunfright*, that are particularly sought-after. For *Alien 8* you might be looking to pay as much as £150 to acquire a complete, boxed example.

COSMIC BATTLEZONES

BBC MICRO

■ If you're an Acorn collector then this compilation of *Jetpac*, *Lunar Jetman* and *Alien 8* is a must have, especially as *Lunar Jetman* never received a standalone release on the Beeb. A copy will set you back £25-£30 at present, which may sound bad but its price has halved over the past decade. Now is the time to grab it.





THE COLLECTED WORKS

ZX SPECTRUM

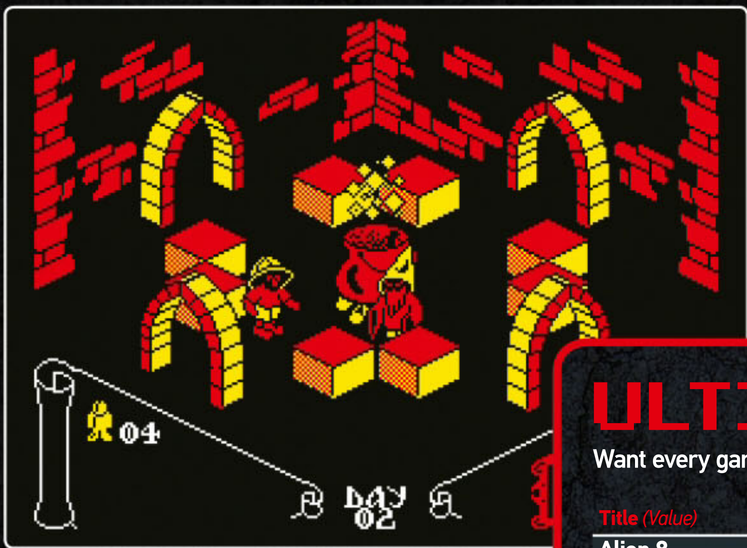
■ This features 11 of the firm's hits, from *Jetpac* through to *Gunfright* (though missing *Underwurlde*). If complete with history doc, hints sheet and 'Land Of Ultimatum' poster it's worth around £50-£60. That's for the tape version however. For the +3 disk version you'll be looking to pay a hefty premium.



that command the highest prices – *Pentagram, Martianoids* and particularly *Bubbler*, which was Ultimate's final release and will go for as much as £60-£80. You can expect to pay around the same for the cartridge rereleases of *Jetpac, Psst, Tranz Am* and *Cookie* that were published by Sinclair Research (see the Collector's Guide in last month's **Retro Gamer**).

Prices on other formats are less predictable, but the list at the end of the article will give you a general idea of current values. In recent years the value of the Commodore 64, BBC Micro and MSX releases has dropped so now is a good time to fill any gaps in your collection. If you like to collect curios then the Ultimate range has its fair share of interesting items – particularly if you look overseas. For the US market Firebird published a Commodore 64 twin pack that contained both *Underwurlde* and *Sabre Wulf* on disk. There are also four MSX cartridge releases (*Knight Lore, Alien 8, Nightshade* and *Gunfright*) that were released in





» [Amstrad CPC] Amstrad versions of Ultimate's games benefitted from extra colour.



» [Commodore 64] *Dragonskulle* was the fourth and final Arthur Pendragon game released for the C64.



"THE LARGE BLACK BOX RELEASES STOOD OUT FROM OTHER GAMES"

Richard Burton

Japan and feature unique, if unusual, cover art. These don't come up for sale very often to valuing them is tricky (you're looking at £100+), but if you're after something unusual then you should seek them out. Another Japanese exclusive is the odd (in a good way) version of *Knight Lore* that was released for the Famicom Disk System by Jaleco.

If you're into homebrew then there are a number of fan-made releases that you should consider. Updates of *Knight Lore* and *Alien 8* were produced for the MSX2 in 2009 and these fetch good money on eBay. There's also Dingo, a game that the company developed for the arcades in 1983 and was later remade for the Spectrum in 2011. The remake's graphics artist Mark R Jones hand produced around 100 copies that were mainly sold at retro shows. Along the same lines is *Land Of Mire Mare*, a homage to the famously unreleased Ultimate title that actually began life as a speculative outline and mocked-up screenshot in the *Mire Mare* article in **Retro Gamer** 105. In 2014, 100 physical copies were produced as a Kickstarter perk to support one of Retro Fusion's *ZX Spectrum In Pixels* books. The game and packaging are both in keeping with the Ultimate style and it's quickly becoming a collectable item in its own right, with copies swapping hands for £50+. *

Special thanks to Richard Burton and Mark R Jones for their help.

ULTIMATE CHECKLIST

Want every game? Our list will help you out

Title (Value)	ZX Spectrum	C64	VIC-20	Amstrad CPC	BBC Micro	MSX
Alien 8	■			■	■	■
Alien 8 (Ricochet)	■			■	■	
Atic Atac	■				■	
Blackwyche		■				
Blackwyche (Ricochet)		■				
Bubbler	■			■		■
Bubbler (disk)				■		
Collected Works, The	■					
Collected Works, The (disk)	■					
Cookie	■					
Cookie (Sinclair cartridge)	■					
Cookie (Sinclair tape)	■					
Cosmic Battlezones					■	
Cyberun				■		■
Dragonskulle		■				
Dragonskulle (Ricochet)		■				
Entombed		■				
Gunfright	■			■		■
Imhotep		■				
Jetpac	■		■		■	
Jetpac (Ricochet)	■				■	
Jetpac (Sinclair cartridge)	■					
Jetpac (Sinclair tape)	■					
Knight Lore	■			■	■	■
Knight Lore (Ricochet)	■			■	■	
Lunar Jetman	■					
Martianoids	■			■		■
Nightshade	■	■		■	■	■
Nightshade (Ricochet)	■			■	■	
Outlaws		■				
Outlaws (Ricochet)		■				
Pentagram	■					■
Pssst	■					
Pssst (Sinclair cartridge)	■					
Pssst (Sinclair tape)	■					
Sabre Wulf	■	■		■	■	
Sabre Wulf (Ricochet)				■		
Staff Of Karnath, The		■				
Tranz Am	■					
Tranz Am (Sinclair cartridge)	■					
Underwurlde	■	■				





CLASSIC MOMENTS

Quackshot Starring Donald Duck

» **PLATFORM:** MEGA DRIVE » **DEVELOPER:** SEGA » **RELEASED:** 1991

A key moment from *Quackshot* is meeting Count Duckula. It's not a bizarre crossover with the cartoon that starred David Jason, but a different Count, who leaves a good lasting impression.

You've already explored Duckberg and Mexico in search of King Garuzia's treasure, but the map you need simply doesn't have many clues on it, and you've reached a dead end. In desperation you head to Transylavnia and eventually reach the spooky abode of Count Duckula, hoping to find answers inside.

After dealing with deadly ghosts and deadly crushing walls you finally came beak-to-beak with the avian vampire. He looks imposing, surrounded by four pet bats, but he proves surprisingly susceptible to a plunger in the ass. After a few more direct hits the bruised Count makes a swift exit, allowing you to find the real treasure map and continue on with your important quest to oust Scrooge McDuck as the richest member of the family. *

MORE CLASSIC QUACKSHOT MOMENTS

Going Quackers



If you've ever watched a Donald Duck cartoon you'll know that he has something of a short fuse. Maybe he's frustrated because no one can understand what he's saying, or perhaps he's just one angry duck with a huge Mickey Mouse-sized chip on his shoulder. What we do know is that Sega captured his fits perfectly, sending him into a raging, enemy-killing fury once he consumes a certain amount of hot peppers.

Travelling In style



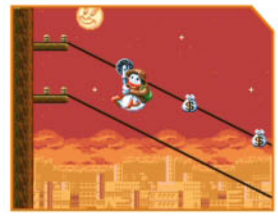
One of the coolest aspects of *Quackshot* is that levels are rarely visited just once. You'll often need certain items to continue, meaning you're constantly trotting across the globe to the same locations, opening up new areas. The world's a big place though, so what better way to travel it than by using a biplane? It's a great way of navigating the game's map, but we're a little concerned that flying duties are handled by one of Donald's nephews.

Cannibal Holocaust



Over the years we've learned a lot about Donald Duck. We know he lives in Duckberg and has a rivalry with Mickey Mouse. We also know that he has trouble talking and that he's based on the American Pekin, a breed of Chinese duck. What we didn't know is that Donald Duck is a cannibal who has no problem eating other birds, particularly if they take the form of a roasted chicken.

Electric Dreams



Although *Quackshot* typically takes the form of a scrolling platformer, there are a few sections that stand apart from the rest of the game and are a little different from the norm. One of the best examples takes place when you return to Duckberg and must travel across telephone lines while grabbing goodies and avoiding electricity. Time your jump wrong and Donald falls to his death.

BIO

After the success Sega had with *Castle Of Illusion* in 1990 it was perhaps inevitable that the company would turn to Disney for another 16-bit Mega Drive platformer. Rather than continue to rely on the appeal of Mickey Mouse, Sega instead shone the spotlight on his best friend Donald Duck, creating a fun platformer that featured the lovable duck going on a globetrotting adventure with his adorable nephews in search of the hidden treasure of King Garuzia.



Ultimate Guide to Moon Cresta

Arcade game creator Nichibutsu had a thing for the Earth's sole satellite, yet only one of its lunar games is remembered to any meaningful degree. Join Graeme Mason for a trip to the space war…

Following the explosion of *Space Invaders* and arcade games in the mid-to-late Seventies, the development of the shoot-'em-up genre advanced in increments, each stage introducing new elements that offered a fresh variant on the tried and tested formulas. Here at **Retro Gamer**, we're never ones to shirk from a challenge. Lord knows, most arcade games are tough enough to make any adult weep as they lose another vital spaceship, drowned under a wave of fast-moving alien attackers. Few, however, boast the nefarious gameplay of Nichibutsu's (a division of an electronics company called Nihon Bussan) *Moon Cresta*. Underpowered weapons? Check. Zigzagging, unpredictable enemies? Check. A power-up that makes up for the extra weaponry, by also ensuring the player's spaceship is as vulnerable as an inflatable banana at a porcupine farm? Check. And ouch.

It was 1980, the dawn of a new decade, and Namco's *Galaxian*, released a year earlier, had already shown the world that the slow-moving easy targets of the aforementioned Taito classic were a thing of the past. Holding a *Space Invaders*-style formation, before swooping down at the player's lone craft, *Galaxian* brought full-colour excitement to the arcades, and at the same time inspired Shigeki Fujiwara, the man generally assumed to have been behind *Moon Cresta*, and a designer of some 40-odd games over a solid career spanning several decades, to create his own space shoot-'em-up, complete with a lovely sparkling starfield. Yet despite this inspiration, and a naturally derivative style of gameplay, *Moon Cresta* successfully combined *Galaxian* with another popular arcade hit and even foreshadowed Namco's own sequel, *Galaga*, a year later.

METEOR
200 pts



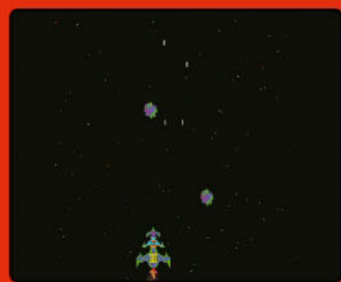
PLAYING TIPS

How to become a Moon Cresta king



DOCKING DELIGHT

■ In contrast to the rest of the game, *Moon Cresta*'s docking sequence is relatively easy, and the margin for error quite forgiving. Don't forget to use the rocket boost to slow the spaceship's descent as – despite there presumably being no gravity in space – it builds downward momentum quickly.



METEOR MAYHEM

■ The meteors of wave eight give no warning of their approach, so be prepared. It's not the hardest of levels, but if you're controlling anything other than the smallest ship, getting caught in the middle of the screen is hazardous. Lurk to the left or right, taking out the odd meteor where possible.



COLD EYE SPLITS

■ The Cold Eyes are probably the most devious enemy in *Moon Cresta*. Not only do they zip and zag down the screen, often sharply changing direction, but the last pair will split into two by themselves. Make sure all the others are eliminated before this happens.

CLOAK ENGAGED

■ Oh those swines! As if things weren't bad enough with random zigzagging enemies and lethal meteors, *Moon Cresta* throws invisible enemies at the player from the second round onwards. It's hard to advise how to tackle these other than to try and stay out of the middle of the screen and study their patterns.



SNEAKY COLD EYES

■ We know it's a common tip in shoot-'em-ups, but studying the movement of the enemies, especially the Cold Eyes, is vital in *Moon Cresta*. Surprisingly there is some method to their madness and there is a vague pattern to their descent, oh and watch out for that deadly reverse switch movement!



MAKE EVERY SHOT COUNT

■ With the exception of the full-sized spacecraft, the player's shot speed is slow. Therefore, it's a much better idea to measure your shots rather than constantly firing in order to avoid any close encounters. Shoot where the enemies will be, not where they are.



PERFECT PORTING

We talk to Ian Andrew, founder of Incentive Software, publisher of many home ports of Moon Cresta



How and why did you get the licence to *Moon Cresta*?

It seemed a popular shooting game that hadn't been done before and I wanted to get the licence officially as it just seemed wrong (and still does!) to rip-off a game. Being a creator of original content, I wouldn't have liked it done to one of my games! I am not sure how I got in touch with the guy as I don't think Google was around then. I remember asking around and tracking down a fellow in an English office that represented Nichibutsu in the UK. Companies like Quicksilva were bringing out games like *Astro Blaster*, based on *Galaxian*, so I think we were the first to actually approach a company and get the rights to use the official name of an arcade machine. I wanted to do something different and I loved shoot-'em-ups.

How much did it cost?

It cost £1,000 for worldwide rights. What was amazing about it was because they'd never been approached by anyone else in the home computer industry, they didn't think there was any money in it. The UK Nichibutsu representative said it had to be at least £1,000 to make it worth the paperwork, so £,1000 it was, for the worldwide rights to put *Moon Cresta* on any home computer system. It was a one-page agreement.

You had coding experience, did you consider having a stab yourself?

No, I could never have done it. There were some freelancers I'd dealt with called Philip Taglione and Timothy Walter – they suggested that they could program the game from just playing the arcade original, so they got the job.

Presumably for the price you didn't get an actual arcade machine to work from?

Correct, but I had one already and we offered it as a prize. A game draw leaflet was included in the first version, Spectrum, and you had to score over 30,000 points to qualify – a message would appear enabling you to prove it. I don't recall the details of the prize delivery so suspect we paid the cash equivalent.

Which was your favourite version?

I played the Spectrum version the most – I liked it a lot, and it was the first version we did.





» [Arcade] The enemy attack patterns are erratic at best. Keep a twitchy hand on that joystick.

» [Arcade] *Moon Cresta*'s first two waves spring the devious cold eyes upon the player. Here one is swooping under for the kill

Like many early arcade games, the plot to *Moon Cresta* is a little thin(read: non-existent). There's you. There's a horde of alien invaders, and presumably a space war of some description. You shoot them, and they fly around, or more often, try and directly collide with the player as if bound by some bizarre extraterrestrial suicide pact. Initially the player pilots a small spaceship that can fire a single, slow shot. This ship (I) is deployed into the battlefield by a mothership, which is in fact two stages of two more spaceships (II and III), and the player's remaining lives. The first two waves consist of four 'cold eyes' each, spiralling creatures that split into two when shot in a nod to another fellow arcade game, *Asteroids*. These enemies weave and bob around, abruptly change direction and frequently pass directly under the player, making them extremely hazardous opponents. Care must be taken when attacking them, too; when there are only two whole ones remaining they will split into two automatically. Wave three and four is the debut of the Super Flies (also known as 'Supper Flies'), and these are perhaps the easiest of the opponents, reflected in the measly score of just 30 points for each one shot down.



» [Arcade] *Moon Cresta*'s docking gives us mixed feelings. On the one hand you get more firepower, but you become far easier to hit as a result.

At this point, provided the player has not been reduced to the largest of their space craft and consequently their last life, *Moon Cresta* takes its cue from yet another peer, Atari's *Lunar Lander*. However, instead of negotiating a tricky descent to the moon's surface, the task is to nudge the player's current spaceship onto the larger one below, thereby increasing firepower while sacrificing a little speed and presenting a bigger, more vulnerable target. Here, the fire button now powers the spacecraft's engines, allowing the player to control its descent; fortunately, once merged, only the ship that is hit by an enemy is then destroyed. Waves six and seven are semi-invisible enemies called 'Four-d' (which yield 60 points each, and are also sometimes called 'Forty') while levels ten and 11 are the even more comically-named atomic piles, *Centipede*-esque mushrooms that elongate themselves down the screen at the player. In between these opponents is a nightmarish meteor storm level as crater-

> "I played the Spectrum version the most – I liked it a lot,"
>
> Ian Andrew

CONVERSION CAPERS

Which version was out of this world?



AMSTRAD CPC

■ With its slightly cramped screen and blocky sprites, this Amstrad port by the Taglione-Walter team may not look the best, but plays extremely well. It's also a touch easier than the arduous original.



ZX SPECTRUM

■ There's a lack of colour to the Spectrum port, and the usual weedy sound effects. But other than that, it plays great, and despite reservations over its ancient gameplay, it received a coveted *Crash Smash*. It's easier, too, with more frequent docking stages.



C64

■ Maybe it was because of the competition from rival shoot-'em-ups on the computer, but *Moon Cresta* on the Commodore 64 was greeted with average reviews upon release. It's another competent conversion, although differing enemy formations and the ridiculously fast meteors do it no favours.



BBC MICRO

■ One of the lesser home conversions, but that's not to say BBC *Moon Cresta* is a bad game; in fact its slower pace actually makes it a touch more entertaining that the other versions. However, despite some nice explosions, the shot speed is agonisingly slow.



DRAGON 32/64

■ The simple 'just-one-more-go' style of gameplay proved popular on a machine that didn't exactly set the world alight with fast shoot-'em-ups, but in truth this is probably the worst of the home conversions by Incentive, and certainly the least faithful thanks to its stark black-and-white display.



PS2/PS4

■ Between 2005 and 2007, Hamster Corporation released a series of lavish collections, each one presenting a perfectly emulated arcade game along with a bunch of extras. *Moon Cresta* on the PS2 sadly only released in Japan. The same company released the game to the PS4's arcade archives in 2015.



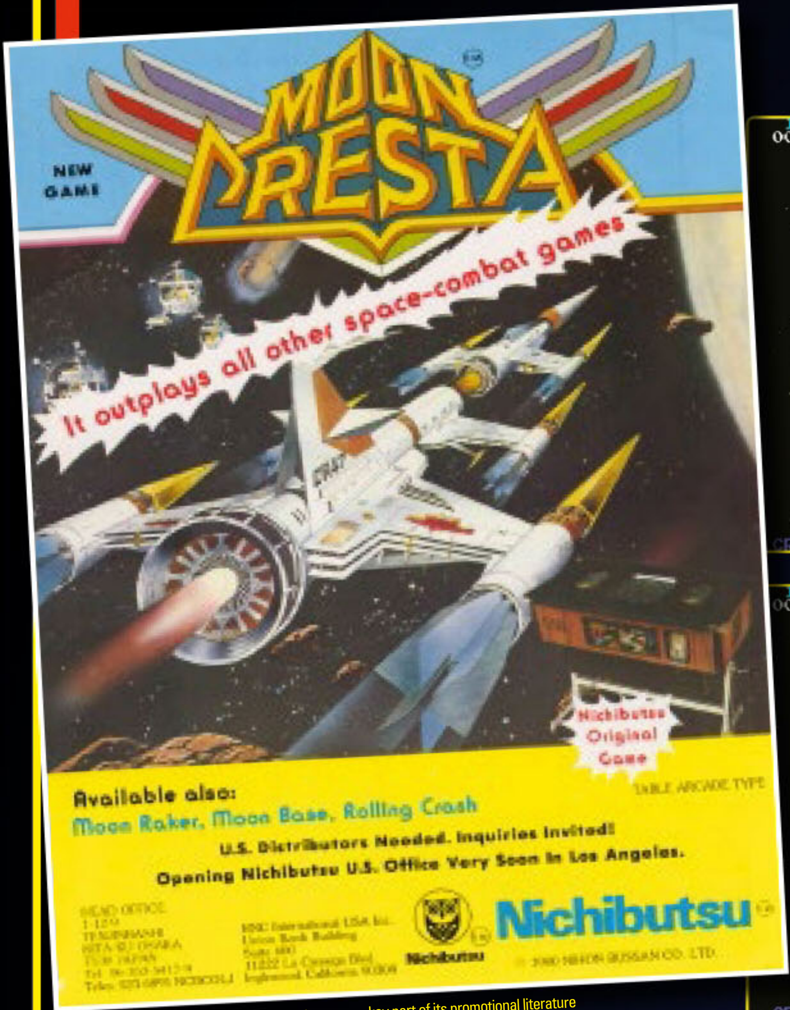
WII

■ Hamster Corporation released *Moon Cresta* to the Wii's virtual console in 2010 and it's another perfect conversion of the arcade original, warts and all. Also released a few years later was an excellent Atari 7800 port by Robert DeCrescenzo that's worth trying.



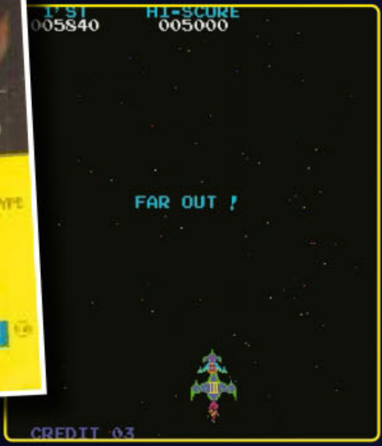
SHARP X68000

■ Released 12 years after the original debuted in arcades, *Moon Cresta* was teamed up with its direct sequel *Terra Cresta* for the first of Dempa's videogame anthology series. It's a precise conversion, including all of *Moon Cresta's* famous frustrations.



» *Moon Cresta*'s interlocking ships were a key part of its promotional literature





▶ pecked rocks hurl diagonally down the screen, a particular hazard against the cumbersome larger space vehicle. Having made it this far, *Moon Cresta* hippyishly declares you as 'Far Out', before reducing the player back to a single spaceship and going back to wave one. Only faster. And harder.

M*oon Cresta* exists in alternate different arcade versions. A revised game named *Super Moon Cresta* was released by Sega and Gremlin in which the enemies finally got to fire back on the player, as if things weren't tricky enough. Florida-based manufacturer Centuri, famous for reimagining Japanese originals also got in on the act, reskinning the game as *Eagle* and refreshing its graphics, while keeping the gameplay essentially the same. The original itself proved enduringly popular in the arcades, helped by an iconic cocktail version that in some regions was more common than the stand-up cabinet. With a dedicated unique machine, *Moon Cresta*'s upright contained a simple two-way joystick and one fire button, with alternate two-player play possible. The player's spacecraft, looking a touch sleeker, flashed over the sides and front of the cabinet, with futuristic-looking controls decorating the front panel, and even today, a *Moon Cresta* arcade cabinet looks a thing of beauty. As a score attack game, it remains an unforgiving experience. A bonus credit is awarded at 30,000 points – dip switchable to 60,000, but not both – and vanquished enemies score pitiful amounts with

MORE MOON CRESTA

Want more multi-tiered spaceships? Look no further, space cadet



SUPER MOON CRESTA

■ Released in arcades by Gremlin Industries, *Super Moon Cresta* sped up the player's shot, but gave the enemies – including, oddly the meteors – the power to shoot back. A decent update then, although basically the same game. Oh, and instead of the 'Far Out' message, you get the slightly backhanded compliment of 'OK Fantastic'.



TERRA CRESTA

■ The official sequel to *Moon Cresta* was released in arcades five years after its forebear and took the original concept of an upgradeable craft, welding it into a then-contemporary style. Again taking its cue from its peers (most notably *Xevious*), *Terra Cresta* features fireball-spewing dinosaurs, which can only be a good thing.



MOON QUASAR

■ We quite like *Moon Quasar*, even though Nichibutsu cheekily released it as a separate game despite it being extremely similar to *Moon Cresta*. Additional features were added in, though: for example, two shots for the small fighter and a bizarre refuelling section with a mothership that we're not quite sure what to make of.

"I wanted to do something different and I loved shoot-'em-up games"

Ian Andrew

no stacking bonuses or multipliers. This makes the efforts of players such as Marcus McHaffie, holder of the Twin Galaxies *Moon Cresta* record with a score of 153,490 even more admirable.

Five years after the release of *Moon Cresta* in arcades, Reading-based Incentive Software acquired the licence to produce home computer conversions, at the time an unprecedented move in a market flooded with unofficial clones of arcade machines. Most of its conversions met with approval, despite the age of the original, epitomising the clean, pleasurable fun of the Nichibutsu classic, despite those sneaky capricious cold eyes.

By predating *Galaga*'s multiple ship mechanic and introducing a range of diverse enemies, *Moon Cresta* is rightly regarded as a key stage in the development of arcade shooters. As its title screen correctly points out before the game bleats out that famous ditty, it's the right place for a lot of fun and thrill. ★



» [Arcade] The first stage of the atomic piles look a little familiar…



EAGLE

■ Florida-based Centuri reimagined *Moon Cresta*'s graphics and the result was a game that, while playing the same as the arcade original, introduced a collection of somewhat chunkier and uglier graphics. The notable exception is the eagle enemy itself. You'll be better off just booting up the original game, if we're honest.



UFO ROBO DANGAR

■ You can call this a spin-off rather than direct sequel, yet many of its themes and game design borrow heavily from *Moon Cresta* (that familiar multi-staged spaceship) and its sequel *Terra Cresta* (the back drop and enemies). It's also great fun, and an unfamiliar shoot-'em-up to many which we recommend you check out.

Dark Chambers

Most retro gamers are familiar with the story of the classic Atari arcade game Gauntlet, but what about this home conversion of its prequel? Kieren Hawken went dungeon crawling with Chuck Peavey to discover the Dark Chambers

The story of *Dark Chambers* starts in 1987 as Jack Tramiel's Atari Corp was finding it tough to get new games onto its consoles in the wake of Nintendo's strict third-party licensing agreements. Not put off by this, Atari got creative, looking to the home computer market rather than the arcades for inspiration. It wasn't long before its eyes were drawn to *Dandy*, a game it had previously published on disk for the Atari 400/800 back in 1983. The game was remarkably similar to Atari Games' hugely successful *Gauntlet* arcade game. In fact, designer Ed Logg himself has stated that he wrote *Gauntlet* as a follow up to *Dandy*. What's better was that Atari already owned the rights for it, so the cash-strapped company didn't even need to pay for the licence. With this idea in hand, it turned to Utah-based developer Sculptured Software to deliver these new versions of the game. Atari wanted a reimagining of *Dandy* for all three of its current consoles: the 7800 ProSystem, XE Games System and Atari 2600. The man given responsibility for the XE version was veteran coder Chuck Peavey, and he recalls how the game was pitched to him. "I remember talking to my project manager about it," he begins. "He had decided he was going to do the Atari 7800 version and my experience with the Atari 8-bit got me the XE port. Anyway, he talked about how it was *Dandy* and explained the gameplay. I said it sounded just like *Gauntlet* and I got really excited. Then he told me that *Gauntlet* was the sequel to *Dandy* with a different name and so Atari wanted to bring *Dandy* back. Then I asked, if they're bringing *Dandy* back why they are calling it *Dark Chambers*? And he said it was because it sounded much cooler!"

The programmers at Sculptured Software were not just tasked with producing a new port of *Dandy*, they were also required to improve it and bring it closer in both form and look to *Gauntlet*. While the Atari 7800 was designed for games like this with its advanced sprite handling hardware, the Seventies-designed Atari 8-bit hardware most certainly wasn't. So we were intrigued to find out how Chuck made it possible. "On the Atari, you can only have four proper sprites plus a missile object," he says. "If you want a coloured sprite, you need to overlap two of them, so we wound up with two sprites for the two characters and the extra sort of sprite was the weapon. Of course, if the background is character-based and the sprites are the good guys that means the bad guys are character mapped, too.

IN THE KNOW

- » **PUBLISHER:** ATARI
- » **DEVELOPER:** SCULPTURED SOFTWARE
- » **RELEASED:** 1988
- » **PLATFORM:** VARIOUS
- » **GENRE:** ADVENTURE



» [Atari 2600] There are a lot less enemies on the 2600 version due to the constraints of the hardware.



"They were soon reminded of why they had an artist do my graphics!"

Chuck Peavey

So then we have another problem, the map is too big for the screen to scroll the whole thing! So in the end we broke the 256-bit limit so we had to split the map in two vertically. Thank goodness the Atari has a horizontal interrupt, so as you scroll down the map to about the middle there is a whole separate map and a whole different character set. If you want to see this in action, go to the vertical middle and sit there then watch the monsters spawn. You can have ten monsters in the top half and you can have ten monsters on the bottom half. That means that in the middle you can have 20 monsters but they can't cross the invisible boundary. But if you kill one on either side, the monster can cross over.

"I think this is what set the Atari XE version apart from the rest," Chuck continues. "I got more monsters in my version than anyone else, even the 7800 version couldn't spawn as many as I could and let's face it, the fun in *Gauntlet* was always getting overwhelmed by monsters!"

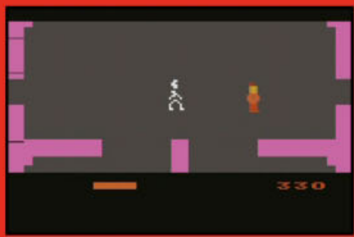
With three separate versions of the game being worked on, we wonder if the three ports share data between them. "Well, all of the code I wrote was mine. I got a set of maps and I worked with an artist on those," he begins. "I remember designing my own character and they were soon reminded of why they had an artist do my graphics and I didn't do my own! Since my project manager was doing the 7800 version, I saw that a few times but mostly, he kept it to himself. I only I briefly say the 2600 version, but I was impressed. Someone else was working on that and we never met as a team sadly." Before we let him go we had to ask Chuck was his favourite memory of the game was, "Well, back in 2009 I went to a little house party and I sat at a dining room table with a bunch of twenty-somethings expecting them to ignore me. One girl asked me what I do. I told her I do business consulting and build websites. She asked how I got into that, I replied that I used to write videogames and it seemed to be a natural move. Then she asked what games I'd written, I told her they were mostly for the old Atari, and she probably wouldn't have heard of them. But I mentioned *Dark Chambers* and she immediately replied, 'That's my favourite game!' and at the same moment all of her friends pointed at her and said, 'That's her favourite game!' I got to hear how if you go over to her house, she expects you to play *Dark Chambers* with her all the time. Seriously, until then, I had no idea anyone liked my games but turns out I had a fan!" *



» [Atari 7800] You'll need to get past that horde of evil wizards if you want to collect the gun and improve your firepower.

CHOOSING YOUR CHAMBERS

We break down the different versions of Dark Chambers



Atari 2600

■ Understandably, a lot of sacrifices had to be made with 2600 *Dark Chambers*, so it plays like a very different game. It's more exploration-based than the others with less focus on fighting and more on finding the right objects. It's not a worse game for it and still highly enjoyable.



Atari 7800

■ The ProSystem version certainly looks the part with its bright, attractive colours and more detailed sprites, but it lacks the intensity of the XE version, unless you play it on the very hardest setting. Do that, though, and you'll find that 7800 *Dark Chambers* is one of the system's top games.



Atari XE

■ Although designated an XE game, this version will play on any Atari 8-bit computer with at least 64k of memory. It features more enemies on the screen than its counterparts, and is therefore far more action-packed, even if it is a bit lacking in colour. It also has the best audio of the three.

THE SOUND OF THE

What has made the music from Amiga games and demos last in gamers' memories? Seven magnificent Amiga composers talk to Andrew Fisher about the 'Paula' sound chip's legacy and their favourite tunes

How did you get into Amiga music?

Jason Page: I joined Graftgold in 1988, when the company was transitioning to Amiga and Atari ST games. I was responsible initially for C64 programming, but soon got involved in writing music and SFX. The first Amiga game I worked on was *Rainbow Islands* (sound only).

Barry Leitch: I was working at Catalyst Coders and I got to borrow an Amiga for a bit. I had a copy of Soundtracker and the first sample disk. I just went to town writing on it.

Allister Brimble: I saw an advert in a magazine asking for music, sound or graphics for PD company 17-Bit Software. I had been playing with some Aegis Sonix compositions which I sent to them and received a great reply, saying that they loved what I had done and would like to include it on their next release! 17-Bit turned into Team17 and things went on from there.

Tim Wright: It was a natural progression as a Commodore fanboy. Within a few days of getting my A500, I had Soundtracker and was composing pretty much a tune a day, until I'd used up all the sounds on the original ST-01 sample disc. Then I invested a few pounds in a Trilogic 8-Bit Sampler, and the world was my oyster! I was also keen to get into the demo scene – a founding member of Jester Brothers International, I guested on demos by Dionysus; *The Puggs In Space* demo went on to become a game made by Traveller's Tales and Psygnosis.

Mark Knight: Coming from the C64, I saw Soundtracker early on and knew I could work with it. I saw a lot of the early 17-Bit Software releases before I got an Amiga, but the sound quality blew me away.

Dave Lowe: Originally writing Z80 code on a ZX81, followed by writing Spectrum games (*Buggy Blast*, *Thrust*) – then moved to programming music on the Spectrum 128 sound chip (*Rasputin*). This led onto commissions for music on Spectrum, Atari ST, C64 and Amiga.

Jeroen Tel: Being a Commodore 64 game composer, the step to Amiga was easily made. I was intrigued by the sample playback possibilities and I was asked to write Amiga music for *Iron Lord* and *Supremacy*.

Why was the Amiga great for music?

AB: The Amiga was the first computer with in-built sampled sound, which sparked a new generation of sample-based music and software. Before this, only dedicated samplers were available to wealthy, well-established composers.

JP: The four sample channels helped! Without the Commodore 64, the Amiga wouldn't have sounded so great early on. Techniques developed over the 8-bit period were very much part of what made great Amiga music. The demo scene meant more people were aware of what could be created on the Amiga.

BL: The Amiga and Soundtracker program levelled the playing field for composers. You were no longer

Bio



NAME
Jason Page

AGE
45

OCCUPATION
Currently console developer relations engineer at Unity

WEBSITE
shockred.com and soundcloud.com/noothermedicine

FAVOURITE AMIGA COMPOSITION
Uridium 2

ALL-TIME FAVOURITE AMIGA TUNE
The Chaos Engine theme, closely followed by Turrican

FAVOURITE RECORD
Changes on a regular basis, but probably Pet Shop Boys – This Must Be The Place I've Waited Years To Leave



» [Amiga] Tim Wright and Brian Johnston created the *Lemmings* soundtrack.

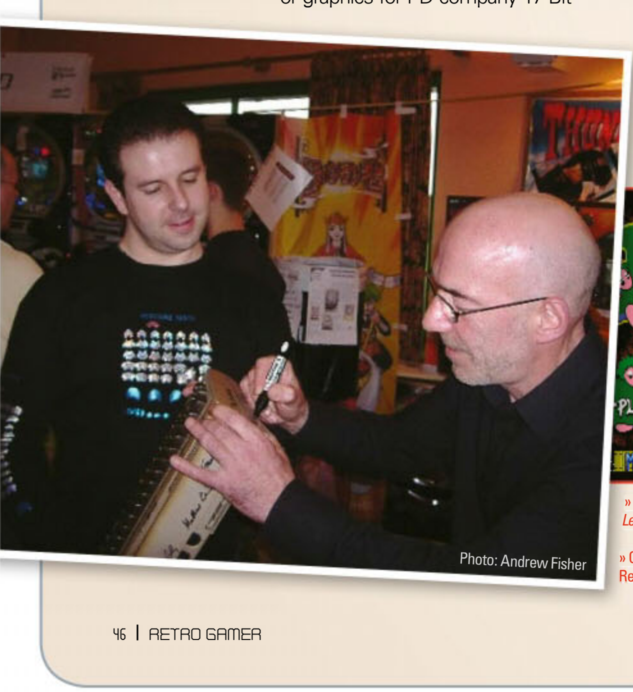


Photo: Andrew Fisher

» One of Richard Joseph's last public appearances, at the Retro Ball in 2005.

AMIGA





» In 2012 Mark Knight launched his *Reawakening* CD.

dependant on a friend who could write a music driver. Over time, people managed to squeeze out extra channels, so there was improvement that carried us to the CD-ROM era.

TW: The cheapest way to get into sample-based music. It was even used for a UK Top 40 single. Accessibility was a huge thing, in terms of bang for buck.

MK: It brought 'realistic' sounding music production to the masses that couldn't afford proper hardware to achieve the same result.

DL: The Paula chip and the 68000 processor. Both set out with complete forethought for the musician and programmer.

JT: Having four channels to play with opened up a whole new spectrum of possibilities. Making music using a tracker also became very accessible for hobbyists.

Tell us about your influences for creating music.

JP: Other composers (Richard Joseph, Chris Huelsbeck). Lots of demo scene music. I wasn't really in that scene, but just remember watching *Red Sector* demos and the *Wild Copper* demo.

BL: Usually, I've been influenced

Number Crunching

3 Of the three custom chips in the Amiga, the Paula chip is responsible for sound (as well as controlling the floppy disk drive, serial port and reading input signals).

4 The number of sample channels available: two left and two right, giving stereo output.

8 Paula plays sounds as 8-bit PCM (Pulse-Code Modulation) samples.

64 Volume levels, with each channel having its own separate volume level.

28KHz Maximum sample frequency that sounds are played back at (using direct memory access).

3,231Mb The size of the UnExotica Amiga music archive, which can be searched by game, composer and title (exotica.org.uk).

Samba De Amiga

The music maestros present the ultimate Amiga playlist



Uridium 2 (Title)

■ The synth-heavy title tune, with its great drum patterns, really suits the colourful attract sequence of this futuristic space shooter. The game in general also makes good use of sampled speech effects and some meaty explosion sounds.

Liberation – Captive II (in-game)

■ Tony Crowther and Ross Goodley's first-person RPG is set in a police state where killer robots are on the loose. The eerie in-game tune mixes suspense, military drums and metallic sounds to create a tense atmosphere.



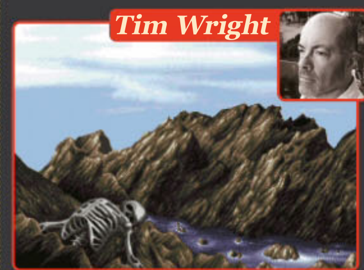


Alien Breed (Title)

■ Played over the introductory sequence and the title screen, Allister's five-minute opus sets the game's tone. The echoing sounds at the start merge into a fabulous electronic theme that never loses its creepy edge, perfect before exploring a 'deserted' space station.

Shadow of the Beast 3 (Game Over)

■ Known as *Funeral*, this is one of Tim's personal favourites from a well-made soundtrack. This is a beautiful, melancholy tune to end a game on. Of particular note are the twinkling chimes, adding a lot of texture.



▶ by whatever I was listening to at the time, or if the programmers wanted a specific style. When I was working at Imagitec writing music for their games *and* Gremlin Graphics, I'd spend a lot of time listening to demo scene music.

AB: Jean-Michel Jarre, and 8-bit game composers David Whittaker, Rob Hubbard, Tim Follin, and Ben Daglish.

TW: Synth bands, such as Depeche Mode, Erasure, Howard Jones and the likes of Jean-Michel Jarre, Vangelis, Yellow Magic Orchestra and Tangerine Dream. I was also influenced by C64 musicians, such as Rob Hubbard, Galway, and Maniacs Of Noise.

MK: A *lot* of Commodore 64 music from a variety of musicians, and Jean-Michel Jarre.

DL: On computer music, nothing – hadn't heard any when I started.

JT: I come from a musical family – my dad's choir practiced at our house and my mother was a classical music fan. Game composers like Rob Hubbard, Martin Galway, and Ben Daglish really inspired me to become one.

What composing process did you use?

JP: For the original Graftgold player, I used NoiseTracker to write music and then keyed the music into the game by editing assembly code. After *Paradroid 90*, I wrote another player with more flexibility. Macros modified pitch, volume, sample loop position and such like. I wrote a PC editor that connected to Amiga, Atari ST, Mega Drive, and SNES directly. I could 'play' the PC QWERTY keyboard to enter/hear notes, but note information was sent directly to the platform. I could hear exactly what the final result would be without rebuilding code.

BL: Usually, I would go with a chord progression I had worked out, or an arpeggio. It varied a fair bit. Sometimes I'd start with the drums, a bassline, or a melody.

AB: I would come up with a new sound set and experiment. I used Soundtracker to enter notes and effects. Another reason why the Amiga was so great… find the sounds and compose. As simple as that!

TW: I would load up some random samples and start creating a drum pattern. Then a bassline... melodies would follow on. Occasionally I'd start off humming a melody, and build from there. The *Puggs In Space* theme tune began as a very basic, almost mathematically generated melody. I did look at how I could squeeze extra samples/notes into a song. Sampled chords helped a lot – one channel, but a two or three-note chord.

MK: It may have been samples in someone else's tracker module, other times I have come up with an idea singing in the shower. There's never been a proper process for me. Ideas come and go all of the time, wherever I am and whatever I happen to be doing.

DL: I always wrote on the piano. Later I used the ST to sequence the parts and wrote a program to convert MIDI data into an assembler text file the Amiga could read when pasted into my driver.

JT: We programmed a music driver and entered the notes in hexadecimal. After assembling the data I could hear what I programmed, went back and kept composing or corrected errors. For some games I used Protracker.

Where did you get samples?

BL: Anywhere I could rip them.

JT: I started with the ST-XX sample disks. I got hold of an Amiga sampler and from that moment on my samples became way more original. I ripped some samples from Protracker Mods that I liked.

Bio



NAME
Barry Leitch

AGE
47

OCCUPATION
Composer

WEBSITE
barryleitch.com

FAVOURITE AMIGA COMPOSITION
TFX (title theme)

ALL-TIME FAVOURITE AMIGA TUNE
Heatbeat – Scrambled Mind

FAVOURITE RECORD
Depeche Mode – Violator



» [Amiga] *Power Drift* wasn't a fantastic arcade conversion, but at least it had great music.



» The *Immortal* series of CDs features work by many Amiga composers. Head to maz-sound.com/immortal for more.



Dave Lowe

Frontier: Elite 2 (Title)

■ A game on the scale of Frontier needed a grand tune, and Uncle Art delivered. With its opening fanfare of trumpets, snare rhythms and John Williams style, budding pilots were prepared to head out into the final frontier.

Supremacy (Title)

■ This is a tune that worked well across different formats, starting life on the Commodore 64. Here on the Amiga, though, the strong drum sounds and darker tone fit well with the gorgeous animated sequence of a god holding a galaxy in his hands.

Jeroen Tel





Barry Leitch

Lotus Turbo Challenge 2 (title)

■ Barry's title tune really suits this racing sequel. Electro bass and vocal samples reminiscent of Yello build into a great Nineties dance tune, thanks in no small part to the awesome percussion.



Photo: Andrew Fisher

» Mark Knight (as the madfiddler) playing with Stuck In D'80s at Back In Time Lite, 2005.

"A lot of my output was done when I should have been studying for my A-Levels"

Mark 'TDK' Knight

JP: Some early tracks used ST-01 (Simulcra) as well as my own sounds. Later games had very little RAM, so I generated waveforms in real time. The lead and bass sounds in *Fire & Ice* were 512-byte square waves. I'd modify the loop position to create the phasing pulse sound (reminiscent of C64 SID). It was far harder to source samples than today.
AB: I soon realised the importance of making my own sounds and these were often done on the hardware synths – Kawai K1, Korg O1, Yamaha TG77 and Kurzweil K2000.
TW: Vinyl, CDs, cassettes, even a microphone and just hit things or talk/sing into it. Back then, samples were largely unidentifiable so sampling commercial recordings wasn't a massive risk. Eventually I did buy some synths. I sampled my friend Shaun Morris' Korg DS8 and Korg M1, and these featured heavily in my *Shadow Of The Beast II* music.
MK: When I finished my GCSE's in 1989 I was given some cash my Mum had been saving up. I think it was supposed to help me continue in education.... but I bought a Roland D10 synthesizer. I got some good samples from that.
DL: I always took the music samples from synthesizers I owned. Short samples were used as is, but longer ones I would find a zero crossing point to enable them to loop so they could play melodies.



» [Amiga] *Paradroid 90* had an incredible soundtrack by Jason Page. He handled all the effects, too.

What were the biggest constraints?

JP: Always RAM. I might get 30K for a game, whereas others might get 30K per level. This was quite painful to work with. Those who bought the games didn't know what limitations we were working to.
BL: Several games I worked on, I got given the brief around 4pm Friday afternoon and told if they didn't have something by 5pm the game would ship without music (*Silkworm* and *Xiphos* are two examples).
AB: Sample rates were limited. With only 512K of RAM, the music often needed to come in at around 40KB. That is why many game tunes were simpler than you might find in demos.
TW: I was very lucky, because most of my musical output was for Psygnosis and they would think nothing of dedicating an additional disk for an intro.
MK: Channels, memory and time. A lot of my chiptune output was done when I should have been studying away for my A-Level exams.

Did you work on the ST?

JP: The ST was dull, especially coming from the C64. I managed to get a good arcing spark sound for *Paradroid 90*. I liked its ring mod. But apart from that, it wasn't much fun.
BL: I would compose on the Amiga, bearing in mind that I had to convert it afterwards. I'd plan to drop an entire channel, or combine a bass and drum line. I'd sit with the ST next to the Amiga, and convert what I could read on the Amiga into note data.
AB: I created several works for Codemasters. The sound chip was almost identical to the ZX Spectrum 128, so mostly 8-bit bleeps. The Amiga was a generation ahead. ▶

Bio



NAME
Allister Brimble

AGE
46

OCCUPATION
Music and sound design

WEBSITE
allisterbrimble.bandcamp.com

FAVOURITE AMIGA COMPOSITION
Alien Breed

ALL-TIME FAVOURITE AMIGA TUNE
Ghouls & Ghosts theme by Tim Follin

FAVOURITE RECORD
Jean-Michel Jarre – Chronologie



NAME
Tim Wright aka CoLD SToRAGE

AGE
50

OCCUPATION
Development manager at Numfum GmbH and managing director at Tantrumedia Limited

WEBSITE
coldstorage.org.uk

FAVOURITE AMIGA COMPOSITION
Shadow of the Beast III – Game Over, or Agony Piano Intro

ALL-TIME FAVOURITE AMIGA TUNE
Hired Guns by Brian Johnston – still amazing to this day!

FAVOURITE RECORD
Howard Jones – The 12" Album

Bio



NAME
Mark Knight aka TDK

AGE
44

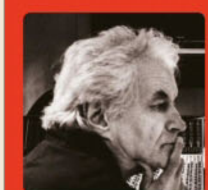
OCCUPATION
Freelance composer and sound designer

WEBSITE
sonicfuel.co.uk and flitkillsmoths.co.uk

FAVOURITE AMIGA COMPOSITION
Chubby Chubby Chip Chip

ALL-TIME FAVOURITE AMIGA TUNE
Klisje paa Klisje by Walkman (Tor Bernhard Gausen)

FAVOURITE RECORD
Currently the Chappie soundtrack



NAME
Dave Lowe aka Uncle Art

AGE
67

OCCUPATION
Musician

WEBSITE
uncleartretrogaming.com

FAVOURITE AMIGA COMPOSITION
Frontier: Elite II (Second theme)

ALL-TIME FAVOURITE AMIGA TUNE
Pass! Next question…

FAVOURITE RECORD
Strawberry Fields – The Beatles

Photo: Courtesy of Dave Lowe



» In 2015, Tim Wright remixed David Whittaker's *Shadow Of The Beast* soundtrack for a Bitmap Books Kickstarter.



» [Amiga] Among Allister Brimble's Codemasters work was converting the C64 soundtrack to CJ's *Elephant Antics*.

TW: I did have some of my music featured on ST versions of games, by means of a MOD file player.
MK: I had a 1040STFM purely to use as a MIDI sequencer (Cubase). It was the lesser machine in almost every way.
DL: Most Amiga music was implemented on the ST – an almost impossible task as there was no sampling chip available. To create the same music on its AY chip was a very unsatisfying experience.
JT: I only used the ST as a MIDI sequencer. Playing with the sound chip inside couldn't inspire me all that much.

Are you still involved in game music?

JP: Not full-time. I still write music for games if I'm ever asked, and if the project fits in with what I want to do. I advise on various panels and such like. Game audio is still something of a passion of mine.
BL: I still do the occasional game. I got to arrange the orchestral medley of *Top Gear Vegas* theme and *Horizon Chase* title theme for Video Games Live in Brazil last year which was challenging, and a life ambition to hear a piece of mine played by orchestra.
AB: I have never stopped working in games, my career has gone from 8-bit to the Wii. I am available today to compose for games – orchestralmedia.co.uk/portfolio.
TW: I tend to pick my projects now – the ones you feel you can do something new with – rather than just work on everything that's requested of me.
MK: I had a rather lengthy break from composition after *Dungeon Keeper 2* in 1999, concentrating on sound design, but I started back with *F1 2015* and I'm now working for myself as an audio content provider.
DL: Not so much these days but I am talking to some companies about follow-up games – they are under confidentially agreements so I'm unable to discuss them at present.
JT: I composed soundtracks on many different platforms. Right now, I primarily compose for PC and web-based games.

> "Skilful composers worked around the limits and composed memorable tunes"
> Jeroen Tel

Have you remixed your own – or someone else's – Amiga music?

JP: I've remixed some of my earlier tracks. *Fire & Ice and Uridium 2* were on the *Immortal 3* CD, and *Paradroid 90* was on *Immortal 4*.
BL: I've done a few for the *Immortal* series but *TFX* title theme, which started as an Amiga MOD for the Anarchy party in 1992, was probably my favourite.
AB: I recreated my best-known tracks for my Kickstarter album, The *Amiga Works* (amigaworks.com) and more recently David Whittaker's *Amiga Works* for another Kickstarter.
TW: Recently, I have been remixing and remastering my back catalogue, and that's great fun. I've created cover versions of other people's work – tracks I've always had a soft spot for, or commission work.
MK: I remade a couple of my chiptune tracks for my TDK album, *Reawakening*. I've got a couple more on the go, which will get finished when I get time.
DL: I have remade some of my favourite compositions on an album called *Temporal Shift* available on uncleartretrogaming.com.

What are your thoughts on the overall longevity of Amiga music?

JP: Technical specs are one thing, but if the final music wasn't good, I doubt anything would be remembered with such fondness.
BL: I think they stand the test of time quite well, and don't sound too 'bleepy' like some earlier computers. You might be able to play one in the car and your wife wouldn't go, "What are you listening to now?"
AB: The Amiga's four channels inspired new ways of composing and utilising sampled sounds. People like David Whittaker and Chris Huelsbeck prove their compositions still sound great today. A good composition is forever! As for composers, they never die, just decompose.
TW: Just like 8-bit musical compositions, there will be people with fond memories of the melodies from back in the day. It does have a uniqueness because of the sound chip, and that makes it readily identifiable.
MK: I can't say that it's timeless for everyone. I often listen to old modules - not just to reminisce, but because there was some amazing music written on that machine.



» [Amiga] Jeroen Tel created the excellent in-game tracks for scrolling owl-themed shoot-'em-up *Agony*.



» [Amiga] Iron Lord was one of the first Amiga games that Jeroen Tel composed for.



» [Amiga] Dave Lowe was once again on musical duties for *ISS: Incredible Shrinking Sphere*.

JT: Good music never dies. Skilful composers worked around the limits and composed memorable tunes. It's amazing younger enthusiasts are appearing on the remix scene, some of which weren't even born when the Amiga launched.

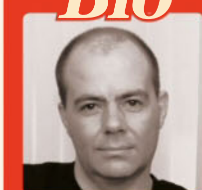
What are your memories of the late game composer Richard Joseph?

JP: We met at a Renegade Christmas party, and spent the whole evening chatting about music. I'd handled Mega Drive conversions of his games (*Gods*, *Chaos Engine* and one *Sensible Soccer*). Soon after, he asked me to work with him full-time. I couldn't refuse. I learned a hell of a lot from him. He lives on through the legacy that he left behind.

BL: I remember listening to his work and being annoyed at how great it sounded! I was very competitive, and *Xenon 2* had my favourite chord progression. I did a remix of *Gods* at the time because I liked the samples, and converted his *Speedball 2* music to PC. He was a great composer and he is sadly missed.

AB: Richard's technical capabilities were superb when creating tight looped, clean sampled sounds… something many struggled with. His compositions were amazing, but his ability to take other tracks, such as those by Jon Hare and arrange them with such limitations was an incredible achievement!

Bio



NAME
Jeroen Tel

AGE
45

OCCUPATION
Music composer and sound designer

WEBSITE
maniacsofnoise.com and soundcloud.com/maniacs-of-noise

FAVOURITE AMIGA COMPOSITION
Agony (in-game tunes)

ALL-TIME FAVOURITE AMIGA TUNE
Dizzy – alternative samba mod

FAVOURITE RECORD
Toto - The Seventh One



» [Amiga] *Lotus Esprit Turbo Challenge* offered a choice of four in-game tracks by Barry Leitch and Patrick Phelan.

MK: Good old RJ. I got the *Wing Commander* gig aged 19 because I had significantly undercut Richard with my quote. His studio experience really helped squeeze the best out of the Amiga. We didn't really get to know each other until the Bullfrog days when he worked on *Theme Park World* (winning a BAFTA for Best Sound), and we got on extremely well. He'd phone me to bitch about how the games industry was changing. Sadly missed!

DL: I didn't know Richard personally. I was aware of his name at the time – his music was always first class in composition and implementation.

JT: I met him at computer shows in London. He always had cool stories – he played in a band with Trevor Horn, now one of the world's most celebrated composers/producers. It came as a shock to hear he passed away. He will always be missed by many as a great personality and composer, but he left quite a legacy behind! ✱

Chip Comparison

How did the Amiga's sound compare to its competitors?

Amiga



Custom Paula (Ports, Audio, UART and Logic) sound chip, four channels of 8-bit PCM samples (28 KHz), stereo output

■ The Paula chip's independence from the processor and high sample rate gave great quality sound. With technical trickery, more than eight channels at once were possible. The Amiga's sound outshone the Atari ST.

Rating: ★★★★★

Atari ST



Yamaha YM2149F SSG sound chip (based on the General Instruments AY chip), three square voice channels plus one noise channel, mono output (stereo output on STE)

■ Ditching the planned AMY sound chip, Atari used a Yamaha chip. Playing samples used up lots of processor time. The weakest 16-bit in terms of built-in sound, but renowned for its MIDI ports.

Rating: ★★☆☆☆

Mega Drive



Texas Instruments SN76489 and Yamaha YM2612 sound chips, four voice generators plus six-channel FM sound, stereo output

■ Both of these chips were used in Sega's arcade games and home consoles. The Yamaha's FM synthesis gave richer sounds. In the right hands, the Mega Drive made some amazing musical compositions.

Rating: ★★★★☆

SNES



Custom Nintendo S-SMP chip, featuring Digital Signal Processing (DSP) and on-board RAM, eight channels of 16-bit samples (8-48 KHz), stereo output (Dolby stereo capable)

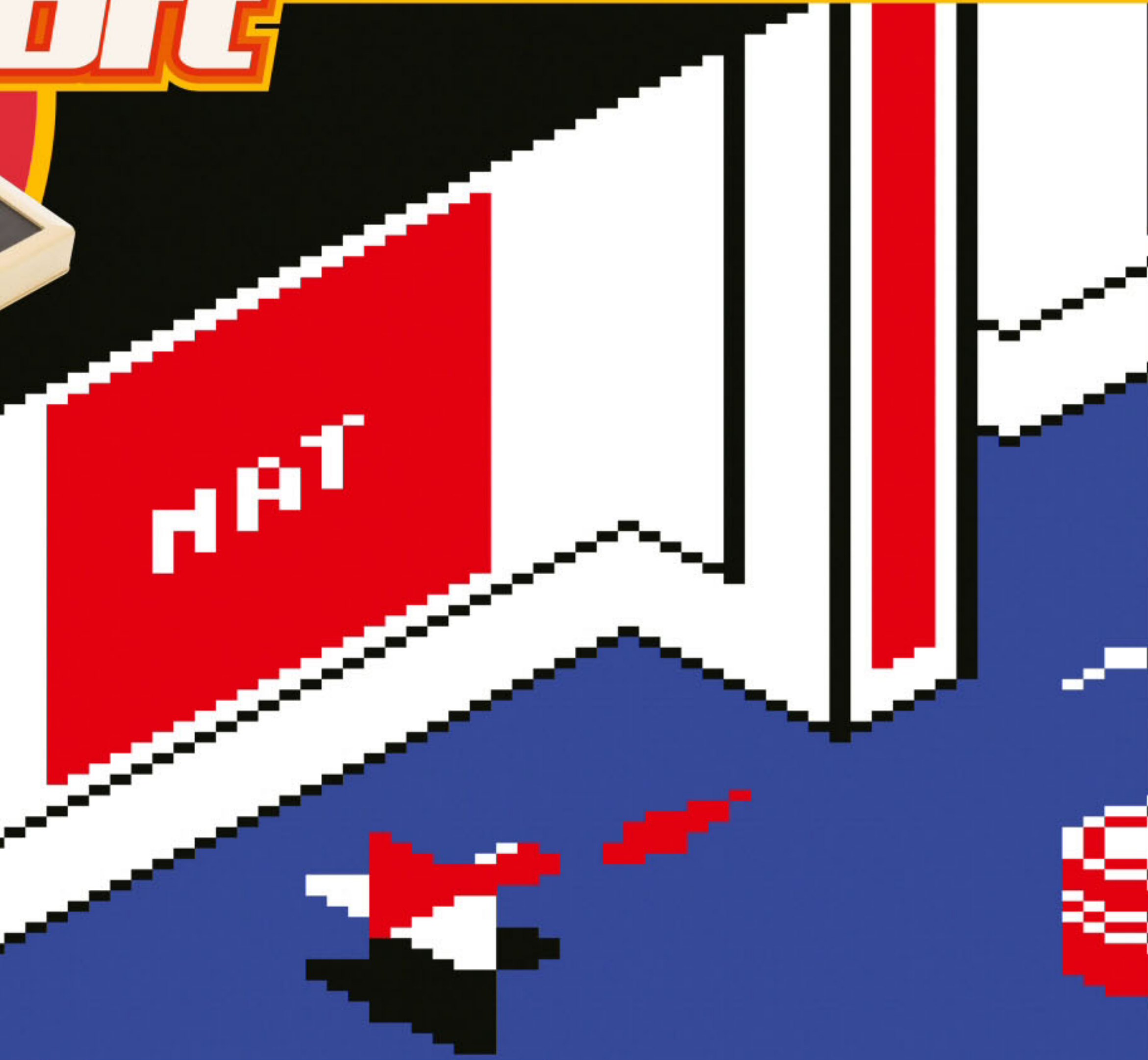
■ With Sony's Ken Kutaragi designing the DSP (used for effects including echo), the versatile SNES sound chip was programmable using its own machine code language. It was harder to compose for, but more than capable of great music.

Rating: ★★★★★

Minority Report

INTERESTING GAMES YOU'VE NEVER PLAYED





BBC MICRO

The BBC Micro was the little engine that could. While others might have had better hardware or more aesthetically pleasing form-factors, the Beeb still had some fantastic games as Tom Baines reveals…



» [BBC Micro] *Fortress* was rereleased for the BBC Micro by Superior Software in 1988



» [BBC Micro] Newman only developed two games for the BBC Micro: *Fortress* and *Alien Swirl*, another sci-fi shooter.

FORTRESS

■ DEVELOPER: **PACE** ■ YEAR: **1983**

■ Rightly or wrongly, the BBC Micro is best known for its position in education. A high purchase price – £335 in 1981 would be over £1,200 today – combined with relatively meagre system specs led to proliferation of the Beeb in schools. This in turn produced a raft of text adventures, simplistic puzzle games and educational bores.

The BBC Micro isn't without it's fair share of higher-end action and arcade-style games, however, and – once you get past the usual suspects such as *Elite*, *Castle Quest* and *Atic Atac* – top of that list is *Fortress*.

Fortress is a *Zaxxon* clone, written by Matthew Newman and published by Pace Software. It feels every bit the copy, though that isn't necessarily a slight on *Fortress*. For starters, the visuals are less detailed than Sega's arcade cabinet classic, but that's understandable – all of the home computer versions of *Zaxxon* suffered from the same visual downgrade, even the officially-licensed ones on more powerful home computers like the Commodore 64 or Atari 2600. The BBC Micro A only featured 16KB of RAM and the BBC Micro B doubled that to 32KB, compared to the Commodore 64's stronger 64KB and the Atari 2600's commendable 128KB, for example.

As if to cement the fact that this is a clone Matthew has, in true Eighties homebrew style, even included in-game advertising hoardings emblazoned with the word 'MAT'. We can only assume that was his three-character monicker on high score leaderboards at the time. It's the sort of thing you wouldn't see in a major publisher's release, and it adds to the charm of *Fortress*.

But when you get your hands on the flight stick of that little plane, it all comes together and feels just right. From the variety in enemy types and the mix between dodging projectiles and dogfighting craft, to collecting enough fuel to progress and the game's smart use of height to traverse the environment – *Fortress* handles everything that *Zaxxon* does, and extremely well, in spite of the BBC Micro's low system power.

There are a couple of little niggles and omissions, though. *Fortress* is missing a lot of on-screen feedback compared to *Zaxxon*, including a visual indicator of your craft's height, for example. It's not a deal breaker by any means,

IF YOU LIKE THIS TRY...

ZAXXON

ARCADE, 1982



■ Obviously if you enjoy *Fortress*, you're definitely going to love *Zaxxon*, the arcade classic to which *Fortress* owes so much of its style and gameplay. Who are we kidding? It's practically a carbon copy, but in the end, the original *Zaxxon* is just a little more refined than the game it inspired.

THUNDER BLADE

ARCADE, 1987



■ This feels like the next logical step from a game like *Fortress* or *Zaxxon*. Another Sega arcade classic, *Thunder Blade* ramps up the presentation and swaps the isometric view for a combination of pseudo-3D and top-down segments, but loses none of the verticality and projectile-hell excitement.

PAPERBOY

ARCADE, 1985



■ This seems like an odd one here, but stick with us. Outside of the isometric shooter genre, we can't think of a game that plays more like *Fortress* (or *Zaxxon*) than *Paperboy*. It's got all the same combinations of speed, dodging and projectiles; the setting is just a little more mundane, that's all.



» [BBC Micro] An unofficial, hacked version of the game exists, where every instance of '*Fortress*' has been replaced by '*Zaxxon*'!

but in a busy game with a lot going on, it's an additional handicap. Having to mentally keep track, count in your head how many 'units' high you are as you're approaching the next aperture in a wall can cause you more issues than it should.

Fortress also didn't feature the turn-swapping, two-player mode of its arcade forebear, but that's not exactly a showstopper, either. Kids in the Eighties were used to taking turns and creating ad hoc multiplayer experiences out of otherwise single-player games.

These are small flies in the ointment, however, and *Fortress* is one of the best arcade-style games on the BBC Micro – even if it doesn't carry the official *Zaxxon* licence.

IN DEPTH



TONED-DOWN GRAPHICS

■ The BBC isn't capable of running anywhere near the graphics of *Zaxxon*, but *Fortress* turns this simple and effective style into an asset.

MEMORY GAME

■ Just like *Zaxxon*, instinct will only get you so far in *Fortress*. You'll need to memorise the wall height sequences if you want to achieve some serious flight times.

BULLET HELL

■ For a lower-powered system, the BBC Micro does a surprisingly good job of keeping up with all of the projectiles on the screen in a very busy game like *Fortress*.

MID-AIR REFUELLING

■ Don't forget to keep a keen eye on your fuel gauge and blast away at those fuel silos, otherwise you'll find you won't be in the air for very long.

Minority Report

CAVING

■ PUBLISHER: **UNKNOWN** ■ YEAR: **1984**

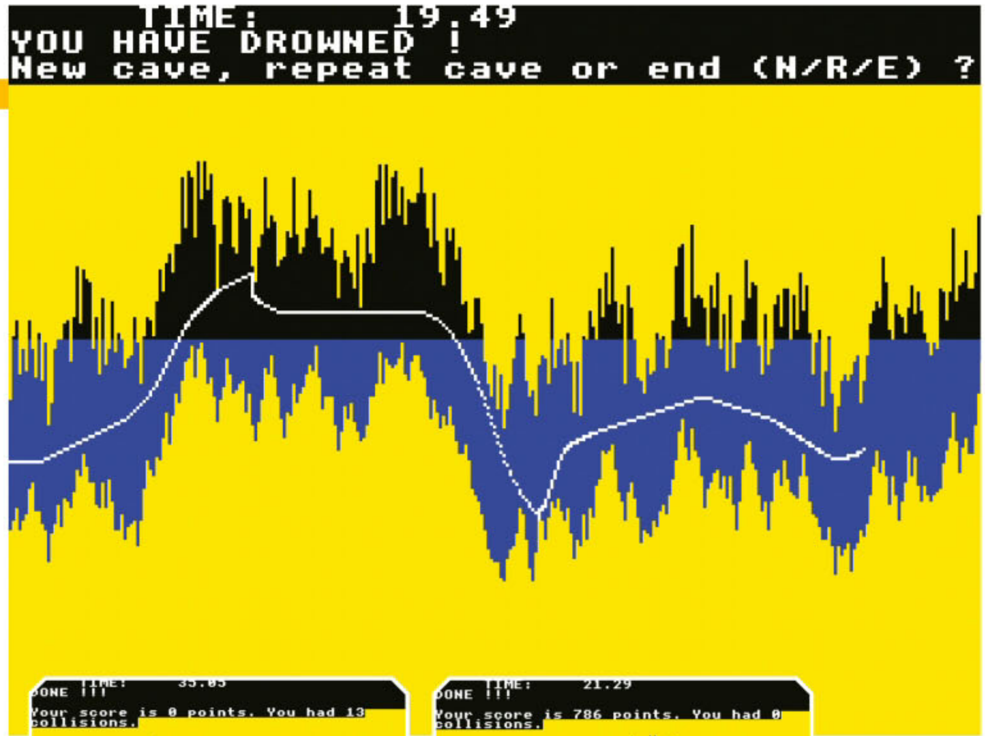
■ **Okay, so *Caving* doesn't look like much – at first glance anyway.** There's a touch of Charlie Brown's sweatshirt about it, the dark stripe across a yellow backdrop, but underestimate this game at your peril.

Modern games, particularly mobile ones that require less horsepower, are forever iterating on old formulae. If *Crossy Road* is the future of *Frogger* and *Candy Crush* is based on *Zoo Keeper*, then *Flappy Bird* is the spiritual successor of *Caving*. And if you've played *Flappy Bird* – or any of those browser-based endless helicopter games from the turn of the century – you'll instantly understand just how frustrating *Caving* can be, but you'll keep coming back to it.

Navigating from left to right between the sawtooth stalactites and stalagmites seems simple enough, but it's a twitchy and fraught affair, with little room for error. The levels are randomly generated from left to right each time you load – we'd probably refer to it as 'procedural generation' in today's parlance – stitching together appropriate heights to make the game challenging enough, but never impossible.

The controls may be tricky, as much about controlling changing momentum as it is making precise adjustments, but unlike other games of this type, *Caving* doesn't ever feel unfair. If you cock up, you've only got yourself to blame – but you're only ever a couple of pixels from failure, which makes things far more exhilarating than a game this simple has any right to be.

Caving is definitely a 'just one more go' game; you'll lose hours to this one just doing the same, simple thing, over and over, hoping for a different outcome. Isn't that the definition of insanity?



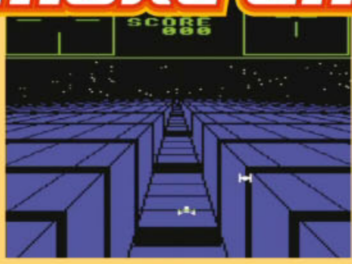


» [BBC Micro] *Caving*'s colour scheme may remind you of a bumblebee, and its design can sting, too



» [BBC Micro] A good run in *Caving* is a smooth, simple, beautiful line. A bad run is like a spider's web on acid.

MORE GAMES TO PLAY



» BATTLE PLANET

■ DEVELOPER: **ISP**
■ YEAR: **1984**

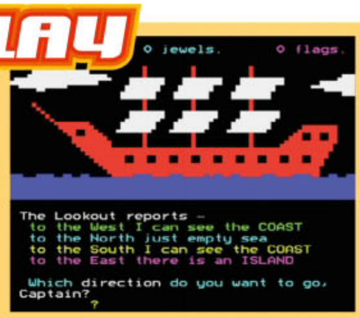
■ Sometimes building a game based on a movie franchise isn't practical. Even modern games struggle with the jumps in setting and pace. And sometimes, you didn't even have the licence, but this was the Eighties and that sort of thing didn't get in the way of making a cool game. Case in point: *Battle Planet*, a pseudo-3D space shooter that is based entirely around an analogue to the Death Star assault set-piece from *Star Wars*.



» CYLON ATTACK

■ DEVELOPER: **A&F SOFTWARE**
■ YEAR: **1983**

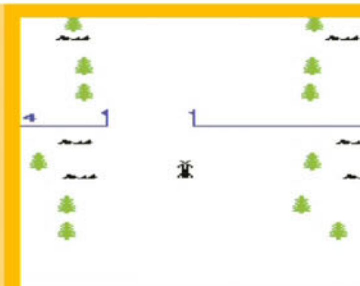
■ Contrary to our last point, you can get that brilliant tie-in licence and then have to come up with a premise to fit in with it. And *Battlestar Galactica* was a dream licence to get in the Eighties. Like *Battle Planet*, *Cylon Attack* focuses on just one area of the *Battlestar* milieu – you guessed it, the bit where the Cylons attack – and it's a rock hard implementation of *Space Invaders* in 3D. With a Cylon licence attached. What's not to love?



» PIRATE

■ DEVELOPER: **CHALKSOFT**
■ YEAR: **1983**

■ Is *Pirate* the missing link between *Zork* and *Monkey Island*? Probably not, but it was still an important adventure game on the BBC Micro. Why? Because in an era when the burgeoning text and graphical adventure genre was channelling Gary Gygax and almost exclusively going for a D&D vibe, *Pirate* was a breath of fresh air. It also helps that it is a solid adventure game, with adorable sea shanties for music.



» DOWNHILL RACER

■ DEVELOPER: **MODEL B COMPUTING**
■ YEAR: **1985**

■ One surprising omission from the BBC Micro's library – which saw ports of classics like *Elite*, *Castle Quest*, *Manic Miner*, and *Paper Boy* – was a *Horace Goes Skiing* release. Thankfully, where gaps appeared in the publishers' schedules, magazines stepped in. Magazine type-ins were staples of the era and with *Downhill Racer*, that *Horace*-shaped hole was dutifully plugged. Thankfully, you don't need to cross the road, either.

THE ALIEN FROM OUTER SPACE

■ DEVELOPER: INCENTIVE ■ YEAR: 1987

■ **How do you pick a favourite adventure game for the BBC Micro, a genre for which the system is famous for, in amongst so many great contenders?** Sometimes it's just one minute detail that makes a single game stand out, and in *The Alien From Outer Space* it's the doors.

The doors are such a small portion of a large adventure game. To the untrained eye, they're just a mechanism, a conveyance from one screen to another. But in adventure games, where getting lost and going round in circles is such a frequent frustration, the doors in *The Alien From Outer Space* all start closed, and crucially, stay open once you've passed through them.

It's such a little thing, but if you've ever struggled against an adventure game's sprawling corridors, mapping out with a pencil on grid paper, it's a lifesaver. It's a technique so effective that even modern games, like *PlayerUnknown's Battlegrounds*, make whether a door is open or closed a key part of their design, and it all started – as far as we can remember – with *The Alien From Outer Space*.

That's not to say *The Alien From Outer Space* isn't without its frustrations, however. You'll often find yourself struggling for the right verb, just like most other text-input adventure games, but at least you'll usually know where you've been.

> **"The doors are such a small portion of a large adventure game"**





» [BBC Micro] The setting in *The Alien From Outer Space* really captures the feel of Eighties cult sci-fi

RETRO STINKER

» AUF WIEDERSEHEN, PET

■ DEVELOPER: TYNESOFT ■ YEAR: 1984

■ Oz laying bricks at 'Stalag 13' under the watchful gaze of foreman 'Herr Eric Führer'? It's as ill-advised as it sounds. Even the 'riotous' Bierkeller sections are disappointing – skip this one.



» DRAIN MANIA

■ DEVELOPER: ICON
■ YEAR: 1985

■ Like *Battle Planet* before it, PA Morgan and publisher Icon Software weren't going to let a little thing like not having the official licence stop them making a *Mario* game for the BBC Micro. Yes, it's a bit of a shameless 'homage' – including the same structure, gameplay, and mix of pipes and weird turtles – but with remappable controls and inertia-based, slippy platforming, it's also a bit of a platform gem for the Beeb.



» LANDER

■ DEVELOPER: PERSONAL COMPUTER NEWS
■ YEAR: 1984

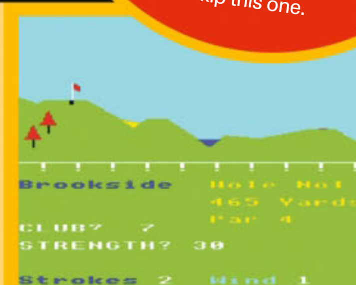
■ *Lunar Lander* was released in 1982, and within a couple of years or so a plethora of other clones, rip-offs, and vaguely similar games arrived. It became rather hard to know whether you were playing the real deal. Thankfully, that didn't matter when *Personal Computer News* published J Holliday's type-in code for *Lander*. There were lots of other versions out there, but this one was the best because you made it yourself. Sort of.



» STAR MAZE II

■ DEVELOPER: MASTERTRONIC
■ YEAR: 1984

■ We all have fond memories of Mastertronic, the bargain bin maestro of the mid-Eighties. So many nearly-purchased comic books and chocolate bars were returned to the shelves when we spied a Mastertronic game by the newsagent's counter. They are woefully underrepresented on the BBC Micro, sadly, but discovering *Star Maze II* – a randomly generated maze escape game, with clever distance countdown mechanics – was a real treat.



» SUPER GOLF

■ DEVELOPER: SQUIRREL SOFT
■ YEAR: 1982

■ Most golf games from the Eighties to the present, preoccupy themselves with being a simulator first and a game second. That means meticulous design, a slow pace and lots of maths. *Super Golf*, which eschewed the top-down layout of the era for a side-on approach, trod a different path. And we should be grateful that it did, because we see the influence of the fun, not-too-serious approach in modern games, like *Party Golf*.



DK Bongos Controller Fact

■ Starting in Super *Smash Bros Brawl*, *Donkey Kong* brings out a pair of DK Bongos for his Final Smash attack and sends out shockwaves with his play – with extra damage for matching the beat.



ESSENTIAL GAME

Donkey Kong Jungle Beat

There's a deceptive simplicity to *Donkey Kong Jungle Beat*. Tap the left drum to run left, tap the right drum to run right. Hit both together to jump, and clap your hands to let Donkey Kong vent his fury on the nearest bad guy with a flurry of fists. It sounds easy, but there's an amazingly well-judged combo system in here that rewards skilled play and imbues the game with a kind of rhythm befitting of the musical controller. There's a Wii version, too, but it isn't compatible with the original controller, which we feel misses the point of the game entirely.

DK Bongos

» PLATFORM: GAMECUBE **» RELEASED:** 2003
» COST: £39.99 (LAUNCH, WITH GAME), £15+ (TODAY, BOXED)

Had we been making decisions at Nintendo during the GameCube era, we're not sure that *Donkey Kong* would have been our first choice of franchise for a musical spin-off. However, if you can imagine Nintendo's ace ape pounding away at the bongos, you'll quickly see why it's so appealing. To support this, a special controller featuring bongos shaped like barrels was produced. Each drum had a sensor for detecting hits, and the controller also featured a Start button and a microphone, for picking up the player's clapping.

Just four games were developed to support the DK Bongos. *Donkey Konga* was developed by Namco, which had already had success with its own *Taiko No Tatsujin* drumming series. Initially released in Japan during 2003, the game was later exported to North America and Europe with different track lists. *Donkey Konga 2* followed worldwide, and Japan also received an exclusive *Donkey Konga 3* with over 50 tracks. The other game was an unusual platform adventure, *Donkey Kong Jungle Beat*, developed internally by Nintendo. DK Bongos were available individually for those players who wanted extra controllers for multiplayer, but were most commonly bought bundled with *Donkey Konga*, *Donkey Konga 2* or *Donkey Kong Jungle Beat*. *

TH LION

Considered to be one of greatest licensed games ever, Adam Barnes looks at how The Lion King's development struggled through team departures, Disney's secrecy and the need to stand out in a overcrowded market

IN THE KNOW

- » **PUBLISHER:** Virgin Interactive Entertainment
- » **DEVELOPER:** Westwood Studios
- » **RELEASED:** 1994
- » **PLATFORM:** Various
- » **GENRE:** Platformer

Much like the films of the same period, you'll find it hard to find a solid consensus when it comes to the best Disney videogames of the 16-bit era: some may pick *Castle Of Illusion* or *QuackShot*, others might choose *Aladdin* or maybe even *Toy Story*. It was an exciting time for the industry, and many film franchises were making the leap into gaming. A lot of cash was being spent to make a success of the burgeoning industry, and Disney was at the top of its game. While there's no way anyone could objectively rank Disney's games of the period, though, there's no denying that the House Of Mouse's platformers were some of the best of the generation, and even fewer could disagree that *The Lion King* was one of the most exceptional examples of its output. The creation of such a game might seem like a simple task from the outside, however, its creation was anything but simple.

The first challenge was getting a developer on board. After the release of *Aladdin*, Virgin Interactive had proven itself as a capable developer able to take on the intense demands of the biggest animation studio around, but the company was taking on a lot of work developing platformers – and it wanted to do more. It sought another developer to add to its roster and with Westwood Studios – this being pre-*Command & Conquer* – already making a name for itself with its high production values, it seemed clear the Las Vegas developer was a good fit. Louis Castle, one of its cofounders and the man that would ultimately end up as the director for *The Lion King*, tells us of how Westwood became involved. "Virgin came to us



» [Mega Drive] As young Simba there isn't much you can do besides rolling into a ball and performing a weak roar.

HE KING

and they said, 'Hey, do you guys have enough capacity to help us expand the number of teams we have doing platform games so we can take on a new Disney property called *The Lion King*?'" While Westwood might seem like an unusual choice now, back then the developer had already handled a number of licences, had produced hits in a range of genres and, as a result, proved it was more than capable. For Virgin, it was an obvious choice, and it had devised a plan that would see the two companies work together, with Dave Perry and his crew in Irvine providing design and development support as well as assistance in building up Westwood's team to enable it to create a title that everyone could be proud of. "I was just really reluctant," admits Louis, surprisingly. "This was in late 1993 and at the time my wife was pregnant, we were going to have twins, and so my first answer was, 'Absolutely not, no way, I don't want to do this.'"



DEVELOPER HIGHLIGHTS

EYE OF THE BEHOLDER
SYSTEM: VARIOUS
YEAR: 1991

COMMAND & CONQUER (PICTURED)
SYSTEM: VARIOUS
YEAR: 1995

BLADE RUNNER
SYSTEM: PC
YEAR: 1997



» [Mega Drive] Disney's technical team felt the into-the-camera chase sequence was impossible, Westwood proved otherwise.

> "My first answer was, 'Absolutely not, no way, I don't want to do this"
>
> Louis Castle

Virgin was keen to get Westwood on board, though, and it wasn't going to take no for an answer. Louis explains: "Martin Alper [then-president of Virgin Interactive] said, 'Well, I tell you what, you come down to Burbank Studios and watch the first five minutes of the film and if you still don't want to do the game I completely understand and we'll call it a day.'" At this point Louis laughs, recalling the deal that was offered to him. "You know, Martin was a crafty guy! He knew that I would be moved, and I was." And so it was set, having seen the opening to *The Lion King* ahead of anyone else and witnessed Simba being raised to the herds on Pride Rock, Louis had decided that Westwood would be the developer, leveraging the help of Virgin and its impeccable team of platform game devs. At least, that was the idea.

"I think I had barely hit send on the email," Louis says, "but right at that time Dave Perry and his team left to create Shiny, and so there was nobody left at the Irvine studios that knew how platform games were built." Without the knowledge of how to work the tools that Virgin had used for its previous platformers, they were effectively useless. "It went from just about the time that we said we'd do *Lion King* to, not within 30 or 60 days, all of a sudden it was December, we had a July final date, we had no code, no support and we had to build a team from scratch. Disney wouldn't send us any details whatsoever, so the only thing we had was rattling inside my head from having seen a part of the film." Louis sells the situation a bit short when he describes it as "not the most auspicious of starts", as if the fact that his wife giving birth to twins in December the same year wasn't stressful enough.



» [SNES] The game as a whole was tough and would take players a lot of time to finally reach the end as a result.

CONVERSION CAPERS



SNES

■ Unlike *Aladdin*, which had different developers for the SNES and Mega Drive versions, The *Lion King* was made on both formats by Westwood. The SNES had the stronger visuals, but also stood out during the chase sequence thanks to Mode 7.



MASTER SYSTEM

■ Naturally, the Master System couldn't compete with the Mega Drive and the gameplay and visuals took a hit. Interestingly, however, was that though it followed the basic structure of the 16-bit versions, its levels were redesigned and it ended up with an easier difficulty curve.



GAME BOY

■ As you might expect, this was the most pared-down version of the game, but it still maintained a lot of the same elements of the originals, and, for what it's worth, was a pretty decent platformer for the handheld.



PC

■ While this version does have richer colour and sound, it did manage to drum up controversy when, due to the insanely high required specs of the port, many people bought the game only to find that they couldn't actually run it.

MEGA DRIVE

■ The other of the two primary platforms, the Mega Drive did to *The Lion King* what it did to so many games of the generation: its visuals were slightly weaker, but the movement and animation was so much quicker and much more smooth.



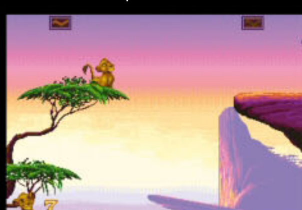
GAME GEAR

■ This portable version was essentially the same as the Master System version, except crammed into the tiny screen of the Game Gear. It didn't suffer too much from the transition, and compared to many other games on the platform, ended up with some of the better visuals.



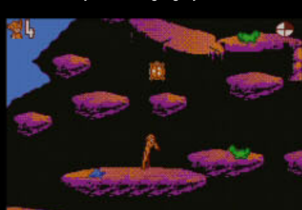
AMIGA

■ While there weren't many issues in terms of gameplay or visual tweaks from the originals, the Amiga version was missing a handful of levels due to the sole developer's lack of time to properly code and test the final product.



NES

■ Despite the poor sound, mechanics and visuals, the NES version still managed to follow a lot of what was set before it by Westwood. It was a rough port, though, and couldn't compete with a lot of what was already on the aging system.



> "We were very careful about what things we wanted to borrow"
>
> Louis Castle

▶ Work had already begun ahead of the dissipation of Virgin's team, but Westwood was having a hard time; Disney, true to form, was remaining cagey regarding The Lion King. Louis recalls that this was at a time when Disney did not have guaranteed success with its animal-based films, and though it was putting its energy into ensuring it was the biggest production of its history, at the time it was still a risk. This meant the information that Westwood was given was the bare minimum, and it gave the team a struggle to figure out where to go from there. "'Well what are we gonna do?'" Louis remembers asking among his team. "We didn't even know the plot of the movie or anything, the most vague information we had was that it was loosely based on *Hamlet* and that the story was one of growth and discovery for this young cub that becomes king. And as we were batting the idea around, we decided that we were just going to have to follow the film, I mean that was only way that we had a chance at making a great game." What this meant was that Westwood would, in essence, be creating two different games: one with Simba as a cub, bottom-bouncing on enemies to defeat them and one as an adult with a heavier focus on combat and brawling. "I talked to Seth [Mendelsohn, the game's designer] about it and we decided to do both," says Louis, "and that was ambitious even when we thought we were going to get help."



» [SNES] Minigames featuring Timon and Pumbaa were the only use of the two comedy characters in the game.

If *The Lion King* was going to be a success it needed to stand out among a very saturated genre. "I mean you have this incredibly well-known category that has some expected feature sets. And you need to be informed by the competition and look backwards to know what kind of permission of play features you can use. But you also have to take a pretty hard look at what you don't want to do. We were very careful about what things we wanted to borrow from the best platformers at the time, and of course the bar was very high. It'd be like saying today, 'Let's go make an FPS and take down *Counter-Strike*.' It's not an easy thing to do."



DISNEY DYNASTY

Games from the House Of Mouse that lit up 16-bit systems



CASTLE OF ILLUSION

■ Arguably the more well known of the Mickey Mouse games on the 16-bit consoles, *Castle Of Illusion* set a strong standard for what we should expect from Disney's platformers in the generation. It was a perfect blend of strong platforming, impressive visuals and a catchy, memorable soundtrack.



ALADDIN

■ This was often a topic in playground SNES versus Mega Drive debates, with both versions being developed by two completely different developers. This meant that there were subtle differences between the two; one had tougher, more balanced gameplay, the other had better visuals and audio. Both, however, were great.



QUACKSHOT

■ By offering a different spin on the traditional platformer format, *QuackShot* managed to stand out for more than just its lovely art and intriguing approach to its story. The plunger gun could be upgraded, and you could revisit levels to explore new areas that made this something of an underappreciated gem.



TOY STORY

■ Though it wasn't quite the achievement that the film had been, it was still a solid platformer that brought in exciting improvements – in particular, the pseudo-3D visuals. It was the Mega Drive version that was the best, however, even beating back the PC port due to the latter's exclusion of a single level.

A combination of Westwood's determination and the input from Virgin's experienced platform game developer Seth Mendelsohn helped to create a title that matched the same high quality that Disney expected and Westwood was known to provide. The game's development didn't provide many technical issues that weren't to be expected, beyond the into-the-camera chase scenes. The biggest obstacle was Disney itself, however. "I would say that working on a property that Disney was so committed to was very unique in that they were very secretive about everything. Ultimately, I had to fly down in March with my team to Florida. We would all live in the Treehouse Villages down there by Disney Studios so we could go into work every day in the trailers, the same place where the animators were working on the movie. It was just so difficult to get any of the material actually sent to us that we were weeks behind and we were just running out of time."



» [Mega Drive] The second stage was intentionally difficult so gamers would buy the game and not rent it.

There was a ray of light, however. Despite the tight timeframe and the lack of information, Westwood did have access to a powerful resource: Disney's animators. "We would be working on the game and we would put in some stick figures for the basic characters," explains Louis of the process of working with Disney. These stick figures would be all that they could work on to perfect the gameplay, finessing the animation so it was ready to play and felt right. "And then we would send those sequences off to Disney animation," adds Louis, "who would redo them. I mean, just start from scratch and create something that was more in line with the film. They would then send us faxed scans with registered marks so we would then have to take the faxed scans, scan them, digitise them, register them with the register marks and then use those as a rough basis to then recreate the art, frame by frame, for the game. It was a challenging process, but I think it's the reason the game feels right."

And when it comes to licences, especially ones as big as Disney's *The Lion King*, it's hard to know exactly how success was born. It's true that the game itself offered something new with the growth of Simba from cub to adult, it's true that it encapsulated a lot of the feelings and key moments of the film perfectly and it's true that the animation meant it was one of the slickest games on the market, but was that really why so many were interested? And boy, were they interested. "As soon as we went to master and we had the disk images done, we fell over the line. The team was exhausted," says Louis, adding that they had the added benefit of witnessing the film become a huge success, and hoping the same would be true of the game. "We went to the movie premier and I think that and the excitement in the media told us was that it was a smash success film by the time we finished the game a month later, so I think in some ways we were thrilled and terrified." As we know, the team had no need to fret. "It was the game that sold the most copies of any game that Westwood ever made as far as a single game on multiple platforms," explains Louis. The pressure and complications that Disney had put the team under at the time might've felt like hell, but it resulted in such a finely-tuned platformer that it could safely ride the wave of popularity brought on by the film's success, and it's lucky that it could. Had it been a disaster then perhaps we never would've seen what Westwood could do next. But instead *The Lion King* ended up not only one of the best platformers of the generation, but has stood the test of time as one of the best licensed games ever. And that's a tough challenge for anyone to achieve. ★





» [SNES] Levels where you take control of an older Simba are typically more action-oriented.



CLASSIC MOMENTS

Galaga '88

» **PLATFORM:** ARCADE » **DEVELOPER:** NAMCO » **RELEASED:** 1988

Sometimes, you just need power. *Galaga '88* is a game that knows this, which is why you're given the choice of starting with the classic double ship, a famous feature of the original *Galaga* that required you to get your ship captured and then rescue it. Two ships means more shots per button press, which means more potential for destruction. But sometimes, you need even *more* power – and that's where the triple ship comes in. Getting it requires some risk, as having two ships captured will often leave you on your last life, but the triple ship's firepower makes you feel something rare in *Galaga '88*. It makes you feel like the odds are in your favour. *

MORE CLASSIC GALAGA' 88 MOMENTS

Galactic Dancing

Each of the bonus stages in *Galaga '88* presents you with a wholly non-violent wave of aliens, flying around in formation to some classical music. What you do with this is up to you – you'll get a big bonus for leaving your ship in place and just watching, but you'll also get one for destroying all 40 enemies. Be sure not to miss when attempting the latter!

Giant Enemy Approaches

It'll be quite a while before you encounter your first boss in *Galaga '88*, and that's what makes it so shocking. These guys are tough as nails, dodging your shots while they unleash salvo after fearsome salvo, blending regular firepower and smaller enemies. Even compared to the tougher merged forms of regular enemies, taking these guys down feels like a big victory.

BIO

It's crazy to think of games being considered retro as early as the Eighties, yet Namco felt *Galaga* was ripe for a modernisation by 1988. The premise remained, but the developer overhauled just about every other aspect of the game. New features included item pick-ups, non-linear progression, scrolling stages and unique enemy types. The result was a game which featured many of the genre's conventions, yet retained enough of the *Galaga* heritage to stand out from other shoot-'em-ups.



Dynamix

Situated in the heart of the American Northwest, Dynamix put Eugene, Oregon on the map throughout the Eighties and Nineties, and above all made games the world enjoyed. Edward Love uncovers the company's dynamic story





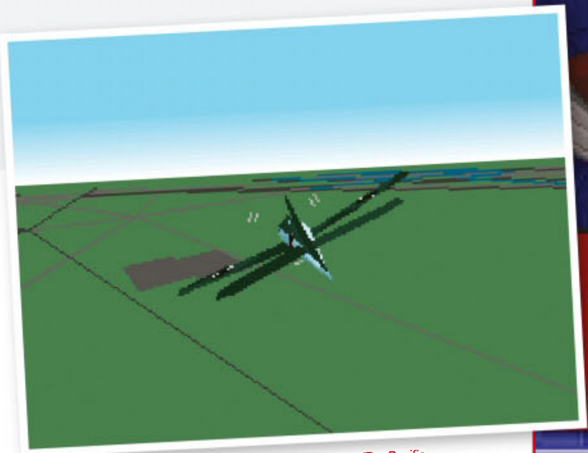
The city of Eugene in the state of Oregon is no San Francisco, or Los Angeles, or Seattle. That is to say, it doesn't grandstand about the tech it produces or hold any pretensions of grandeur. This is bucolic territory, a stretch of the American Northwest that lies 60 miles west of Willamette National Forest. It plays host to glossy rivers and a skyline of trees that turn a flaming orange in spring. There are businesses, of course, but they stand in the shadow of the undulating foliage and seem rather embarrassed to be there at all. *Alan Wake* country, if you like. Without the nightmares.

Eugene enjoys a fascinating symbiosis with the games industry. It is the town that gave rise to Dynamix, after all, maker of showstopping technical feats such as *Red Baron*, *Betrayal At Krondor*, *Earthsiege*, *Rise Of The Dragon*, as well as inventive fare like *The Incredible Machine* and *Space Quest V*. The Dynamix story is one of game developers removing the blinkers from a small town and expanding its horizons; of a quest for technical perfection that led to a merger with Sierra and a fateful death at the hands of corporate overlords.

It begins in 1983. Entrepreneur Jeff Tunnell opens up a software store, Computertutor, and attracts a gang of budding techies absorbed by the brave new possibilities of personal computing. One of them is Damon Slye. "Since high school, I had been programming on a Commodore PET," Damon recalls. "The graphics were ASCII characters on the screen, so I bought an Apple II, funded by winnings my grandfather had made



» [Apple II] Damon worked as both producer and designer on *Stellar 7*. It was very successful and was followed by three sequels.



» [PC] *Aces Over Europe* was the follow-up to *Aces Over The Pacific* and was released in 1993.



» [PC] The DOS version of *Stellar 7* was a huge improvement over the earlier 8-bit releases.

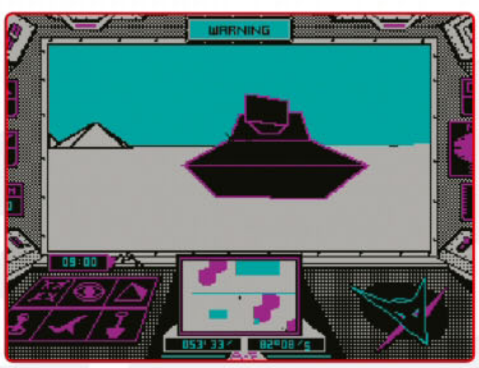


» [PC] *Betrayal At Krondor* was based on the Riftwar novels by Raymond E Feist.

on a horse bet." The money was supposed to go to college, but Damon had other ideas. Channelling the might of Steve Jobs and Steve Wozniack, he wrote a tank combat game set in seven solar systems, naming it *Stellar 7* in the process. But this was Eugene, 1983, and Damon couldn't get publishing bigwigs in California to take notice. Brøderbund even sent Damon a bizarre counter offer – come down to San Francisco and you can work for us in your spare time, sans pay.

Jeff Tunnell fancied graduating from computer store owner to computer game publisher. He took Damon aside and set the scene. They would go it alone, like true entrepreneurs, publish *Stellar 7* themselves, and make their riches. But without a sales force, and without product en masse, publishing was hard work. Never one to admit defeat, Jeff suggested a 180-degree pivot: if they couldn't publish games why couldn't they make them instead? And so Software Entertainment Corporation rose from Eugene's hardy ground in 1984. There were four partners, Jeff Tunnell, Damon Slye, Kevin Ryan and Richard Hicks, determined to make the games they liked. The dubiously-titled business got a new moniker, Dynamix, and Eugene's first development house was ready to get started.

While his partners were comfortable immersed in reams of code, Jeff was a go-getter with strongly-held opinions who was liable to leave a few bodies by the side of the road. He was well-equipped, then, to deal with a phone call from Electronic Arts. EA's producer Joe Ybarra was on the end of the call seeking



» [PC] *Articfox* saw Damon sharing programming duties with several other developers and is the sequel to *Stellar 7*.

a game with loose movie trappings that would rival Brøderbund's *Karateka*. Dynamix got to work on a big idea and headed to San Francisco for the meeting, the germ of a game inspired by *Blade Runner* in its back pocket. Their pitch went well and everyone in the room said yes – everyone except Joe Ybarra. 'No, let's do a tank game for the Amiga,' he suggested. It was a computer utterly alien to the local crowd, but Jeff and Damon were handed a small fortune up front – $35,000 – and so they went to work on *Arcticfox*. Damon did the maths of free space and Kevin handled the graphics. Together, they produced a stunning 3D simulator that enabled you to operate a tank in strategic battle. Dynamix was all of seven or eight people at this stage, but *Arcticfox* would unfurl the blueprint for *Battledrome*, *Earthsiege 2* and *Starsiege*. Hulking behemoths skulking meticulous 3D worlds.

Jeff, however, didn't want to abandon interactive storytelling altogether. While the *Blade Runner* game cooled, he snuck in an homage to *Alien* instead. *Project Firestart* was a side-scrolling adventure featuring chunky terminals smeared in lurid green text and nasties waiting to tear you limb from limb. It carried a survival horror aspect with an emphasis on story and though EA shipped the game, by now Jeff and Damon were sick of dealing with the company. "It was a bad business model [for Dynamix]. We were a captive developer begging for the next deal," Damon remembers. And worse, cocooned in a web of legalese. Activision offered to get them out of the deal, but Activision had its own problems. It was going through a rebrand at the time, changing its name to Mediagenic, and after six

Instant Expert

- Dynamix began life as Software Entertainment Corporation in 1984 before wisely choosing to rename.
- **It was cofounded by Jeff Tunnell and Damon Slye, with Kevin Ryan and Richard Hicks joining as partners.**
- When Dynamix was acquired by Sierra in 1989, Ken Williams predicted the 30-man team would grow to 120 within a year, and he was right.
- **Sierra gave Dynamix the chance to work on bigger games thanks to massively expanded budgets. For instance, EA had funded *Arcticfox* to the tune of $35,000 in 1986. In 1990, Sierra handed Dynamix $550,000 to make *Red Baron*.**
- *Red Baron* was a smash hit even though it missed its all-important Christmas window.
- **Dynamix was one of the best - and earliest - exponents of 3D graphics. But id Software ripped away that mantle with *Doom*, layering textures on top of polygons. Dynamix had been caught out in the cold.**
- *Space Quest* was typically a Sierra affair overseen by Mark Crowe and Scott Murphy. But when Mark decided to relocate to Eugene, he brought *Space Quest* with him, and Dynamix produced the fifth title in the franchise.
- **Dynamix dissolved in 2001, but its dissolution started a budding game development community in Eugene.**









years Dynamix was back in a familiar position: able developers with extraordinary tech, but unable to rely on a trusted distributor. Fed up, it self-published twice in 1989, heading to Salem to oversee the floppy discus burned for production. 600 miles to the south, Ken Williams of Sierra had taken notice.

Sierra's founder liked nothing more than a company that could produce content, and when Dynamix created a whopping eight games in 1989, Ken came calling. Thick documents requesting a merger arrived in Eugene. The business tycoon was impossible to turn down. Jeff saw Ken as a kindred spirit – a passionate entrepreneur driven to make great products – and besides, Jeff had been fretting about cash flow for several years. Sierra's millions would open the floodgates to quality without compromise. No more haggling with EA, or conversations with Activision. It was a good deal, a great deal, but it also meant Dynamix was at the mercy of Ken and his future business dealings.

In the late Eighties, making games was a crazy, chaotic business. Job titles? A career ladder? A project management scrum? None of that existed, and that suited young David Selle just fine. He arrived at Dynamix a fresh-faced college graduate just as Sierra was getting involved, and was tasked with testing games for bugs. But not knowing better, he went to pains to point out all the game design flaws too.



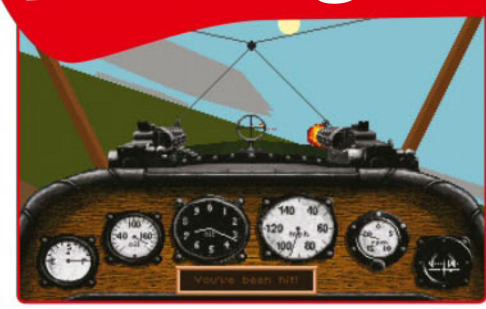
» [DOS] *Heart of China* continued Dynamix's early Nineties tradition of games boasting filmic influences.

"Partly to shut me up, Jeff told me to write a game treatment"
David Selle

"Partly to shut me up, Jeff told me to write a game treatment," David remembers. So David did. That treatment would become *Rise Of The Dragon*, a spiritual successor to *Blade Runner*, and a game Jeff had always wanted to make. It would be equal parts graphic novel, equal parts game, and something consciously new. Dark Horse Comics' Robert Caracol was drafted in to do the artwork while Kevin Ryan designed the Dynamix Game Development System, a set of routines that would enable Dynamix's growing stable of storytellers to shape the experience. The game's writers and the game's coders both traded in text – but of very different variety. Kevin found a way to break this barrier. "The Game Development System made a way for people who weren't technical to add to Rise Of The Dragon – like conversation trees – and it was hooked up to our local area network, so multiple people could be editing at once," Kevin says.

Rise Of The Dragon shipped in 1990 bearing a proud emblem – "Part of the Sierra family" – and offering graphic novel art in full 256 colours. The Eugene office was no longer a factory for mech combat sims – storytelling was a part of the fabric of the company, too.

Defining Games



RED BARON
VARIOUS, 1990

■ Of all the games Damon Slye made, this one is his favourite. And why not? A keen plane enthusiast who later acquired his own licence, Damon channelled his learnings from the Eighties into a full-bodied flying enthusiasts' dream that took you on a tour of the skies over the Western Front during the World War 1. *Red Baron* was the culmination of improving technology and a growing wallet. The tight aerial combat and period gameplay was a hit, and the impressive VGA technology blew gamers away.



RISE OF THE DRAGON
VARIOUS, 1990

■ Slip into Blade's rust-brown duster jacket and it's hard not to feel like you've entered a non-licensed version of *Blade Runner*. Dynamix had long wanted to make a story-driven experience inspired by the film, and *Rise Of The Dragon* finally solidified that vision. Protagonist Blade is a fitting homage to Rick Deckard, as is the cyberpunk vision of Los Angeles – circa 2053. And with the clock ticking, the pressure is on Blade to stop the bad guys, and save the day, of course.



BETRAYAL AT KRONDOR
PC, 1993

■ This one is role-playing royalty. Based on the fantasy novels by Raymond E Feist, *Betrayal At Krondor* features an enormous open world that you can explore at your leisure. It represents early Nineties questing in full 3D, replete with turn-based combat and puzzle-solving mechanics. Critics at the time were quick to shower it in praise and it's hard not to be impressed with *Betrayal At Krondor* today, although many years on, we admit that it can be a bit of an eyesore.



» [DOS] *Aces of the Deep* was hugely demanding on the PCs of 1994.



» [DOS] The Willy Beamish story begins at after-school detention, of course.

Then, in the Nineties, Mark Crowe moved to Eugene after deciding he wanted a change of scenery. Mark is Sierra royalty: one half of the dynamic duo that made a career riffing on *Star Wars* and *Star Trek*, serving up ludicrously moreish tales of a bumbling space janitor called Roger Wilco in the *Space Quest* series. Mark was keen to write *Space Quest V* at Dynamix and David Selle jumped at the opportunity to help him. The two men hit it off, matching one another comic stride for stride. Roger Wilco would start out sitting a test, which he cheats on, before being given his own space ship to commandeer. Yes, it would be a garbage scow shaped like a vacuum cleaner with a tin foil hat, but it would be the gateway to another series of misadventures featuring the world's most inept hero. Roger duly gets in over his head, facing off against a drone with cone breasts shaped like something out of a *Xena: Warrior Princess* episode before using a banana to get the edge. Later, he has to overcome a vicious mutating plague that turns skin to puss-ridden, oozing, dribbling molten lava. Somehow, Roger lives to fight another day.

Five years after joining forces with Sierra, Dynamix had grown massively. It was 1994 and the partners had seen out their contracts and were eligible to leave. So cofounder Damon Slye did just that. "I was really burnt out. Game development was all I had been doing, working 60-80 hour weeks, month after month. I didn't have a personal life." Damon went back to school, earning a Bachelors' degree, then got his pilot's license and moved out of Eugene – to San Francisco of all places. Damon's departure marked the end of Jeff and Damon as a duo, but as it turns out, the two weren't working together closely by this point.

In fact, Jeff had indulged his rogue spirit some years earlier when, in 1991, he broke ranks and formed Jeff Tunnell Productions, a smaller, intimate team under the Dynamix umbrella that would make its own games. He was legally obliged to remain a part of the Dynamix family but he could spin his own web,

Timeline

1983 ■ Damon Slye creates *Stellar 7* and gets into business with Jeff Tunnell.

1984 ■ **Jeff Tunnell and Damon Slye start Software Entertainment Corporation. They bring Kevin Ryan and Richard Hicks on board, and rename the company Dynamix.**

1986 ■ Dynamix enters a multi-game deal with Electronic Arts, starting with $35,000 to make *Arcticfox*.

1989 ■ **Dynamix ships a whopping eight titles in 12 months. By this time it had extricated itself from the EA deal.**

■ Ken Williams of Sierra comes calling and offers to buy Dynamix. Jeff and the team agree, pleased to be relieved of cashflow worries.

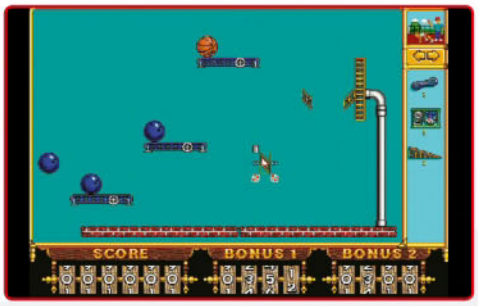
1991 ■ **Jeff Tunnell creates a breakaway group under the Dynamix umbrella, Jeff Tunnell Productions, and Kevin Ryan joins him. They work on puzzle game *The Incredible Machine*, which is released in 1993.**

1992 ■ Mark Crowe joins Dynamix and works with David Selle to write the story for *Space Quest V*, which is released in February 1993.

1994 ■ **Damon Slye leaves the company to take a break from the exhausting process of games development.**

1996 ■ Sierra is acquired by CUC in a deal that will doom Williams' company. Dynamix, by proxy, is doomed too.

2001 ■ **Dynamix ships *Tribes 2*, a team combat shooter rooted in the earliest work of Damon Slye. Despite a favourable reception, Dynamix closes shortly after.**



THE INCREDIBLE MACHINE

AMIGA, 1993

■ A good puzzle game never gets old, and Kevin Ryan's *The Incredible Machine* has aged rather gracefully. In it, you arrange objects around the screen to try and create an elaborate contraption that accomplishes a simple task (like putting a ball in a box). Kevin worked on it at Jeff Tunnell Productions, a subsidiary of Dynamix, an intentionally small breakaway group that would give Kevin the room to breathe. It's still the game he's most proud of after all this time.



STARSIEGE

PC, 1999

■ Dynamix traded in 3D mech combat throughout its lifetime, but by 1999 the genre was proving unpopular, overawed by FPS titles. Despite this, and even with Damon Slye long gone, Dynamix stuck to their guns and produced a quality experience. *Starsiege* is not its best work, but it proves that the earliest learnings of *Stellar 7* and *Arcticfox* still coursed through the company, even after its cofounder had left. Look no further than the carefully rendered 3D worlds, the tactical battles, the stomping combat. Bravo.



DNA of Dynamix







PUSHING TECHNICAL BOUNDARIES

■ When VGA cards first popped on the scene, Dynamix was ready to pounce on the technology. The team wrote internal toolsets and page-flipping routines to eke out the most from the technology. In *Aces Of The Deep*, you needed an extended memory manager just to run the game.

SUPERB SIMULATORS

■ Submarines, fighter jets, period aircrafts. Dynamix had a keen eye for situating you within the confines of real machines, from the F14 jet fighter to the World War 1 Camel biplane. Lest we forget, Dynamix also created simulations of pinball and golf, too, – slightly less in-your-face pursuits, for sure, but definitely worthwhile we're sure you'll agree.

MECH COMBAT

■ Hulking great mechanical machines engaged in strategic warfare: it's almost a bygone genre by today's standards, but there was no better exponent at the time. Dynamix dabbled in this particular brand of game, to name but a few: *MechWarrior*, *Metaltech: Earth*siege, *Battledrome*, *Earthsiege 2* as well as *Starsiege*.

Where Are They Now?



DAMON SLYE

■ Years after leaving Dynamix in 1994, Damon decided he wanted to enter back into the collaborative scrum. By accident, he bumped into his old partner Jeff Tunnell. Jeff's company GarageGames had been acquired and given an injection of funding. There was money there, and would Damon like to get his hands dirty? Absolutely! Later, Damon headed to Mad Otter, where he now works on free-to-play MMO *Villagers And Heroes*. Oh, and he's living in Eugene - back where it all started. You can read more at villagersandheroes.com.



DAVID SELLE

■ David has worked at a host of companies since leaving Dynamix and built a slew of software teams. He's currently based in San Francisco where he works remotely with New Zealand tech company Nyriad. Nyriad develops hyperscale storage solutions that guard against bit rot, and consults with the Australian and New Zealand government on the Square Kilometre Array, the satellite that, when complete, will store three times the data currently generated by the entire internet. David is imparting his organisational experience and helping secure a foothold in the US.

JEFF TUNNELL

■ Entrepreneurship runs in Jeff's blood. He founded a series of companies after leaving Dynamix, including GarageGames, Spotkin and Push Button Labs. When Disney bought the latter, Jeff reportedly did nicely out of the deal.

In March of 2017, he bowed out of games development entirely, writing this: "I have always surfed the latest trend or been ahead (sometimes too far) of what is happening in games, but this past round of consolidation of platforms into app stores and literally millions of games coming to market caught me flat-footed, and I'm out of ideas on how to succeed."

Don't feel too sorry for him, though. It sounds as if he's having a blast, including mountain biking, motorcycling, building and… farming weed. Yup, Jeff is a marijuana farmer now after the US Northwest declared it legal.



KEVIN RYAN

■ Kevin worked at Dynamics up until 2000, most of which was spent under the umbrella of Jeff Tunnell Productions. In fact, he has worked almost exclusively with Jeff throughout his career, following him to Garage Games and freelancing at Spotkin. Today, he works on *Contraption Maker*, a wildly successful follow-up to *The Incredible Machine*.

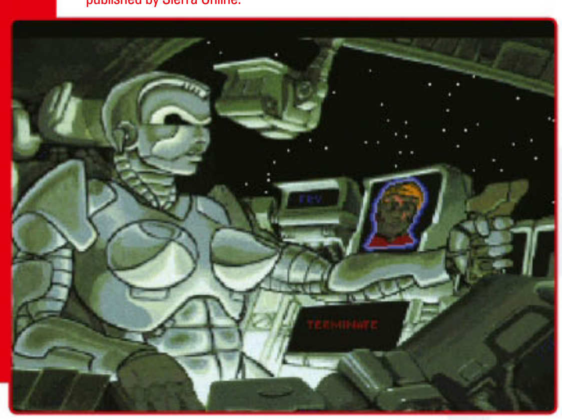
> "Huge corporate fraud was happening. People literally went to jail"
> David Selle

▶ and Kevin Ryan joined him as they got to work on The Incredible Machine. Offering up a series of taxing brainteasers, it has early *Portal* in its DNA and a jukebox of dubious Eighties tunes to boot.

The Incredible Machine complemented a dynamic resume: simulators like *Earthsiege* coexisted alongside story-driven games, like *Rise Of The Dragon* and *Heart Of China*, and *Dynamix* had also cut its teeth in role-playing with the excellent *Betrayal At Krondor*. But then, in 1996, Ken Williams sold the entire Sierra family to Comp-U-Card International (CUC) – Dynamix included. Hindsight is 20-20, but no one knew what a monumental disaster it would prove. "Just because they bought us," David Selle remembers, "didn't change what we were doing." The bigger change came when Jeff Tunnell left to start GarageGames. The creative guru was gone, taking his long-time collaborator Kevin Ryan with him, and suits were installed in his place.

By this time, CUC's dirty laundry was airing in public. How does one put it nicely – CUC was morally compromised. Or as David puts it… a bunch of crooks. "They were playing games with synthetic revenue and double counting it," he vents. "Huge corporate fraud was happening. People literally went to jail." Suddenly, years of treasured stock options were down the toilet.

» [PC] *Space Quest V* was one of several Dynamix games that was published by Sierra Online.





MOVIE TRAPPINGS

■ For some time, Dynamix experimented with filmic-style games, creating Project Firestart in a nod to *Alien* as well as *David Wolf: Secret Agent*, which had digitised actors' faces – however it was poorly received in press quarters. The company finally found its cinematic groove with *Rise Of The Dragon* and then *Heart Of China*.



ADVENTURE GAMES

■ Parent company Sierra has a far more established reputation in the realm of adventuring, but Dynamix was more than keen to flex its own storytelling muscles. *Rise Of The Dragon* and *Heart Of China* were adult games and concerted mood pieces, while *Space Quest V* was a comedic ride, and *The Adventures Of Willy* Beamish, a child-friendly affair.

PART OF THE SIERRA FAMILY

■ To the uninitiated, the Dynamix legacy can be summed up a single phrase: "Part of the Sierra family." But that's only half of the story, since this was an independent studio for five years before Ken Williams came calling. Sierra's resources doubtlessly helped, but the foundations for success were already firmly in place.

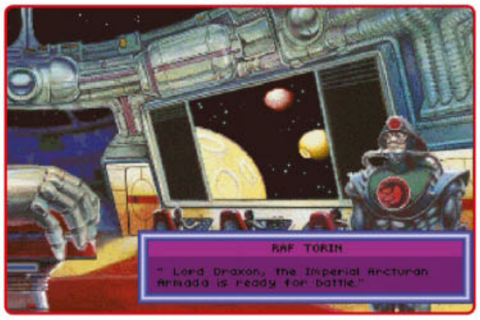
"After all this time, I killed myself for this," David quips. "A-holes cooking the books to screw me over?"

In 1999, Dynamix bore no resemblance to the company David Selle had joined a decade earlier and he was ready to pack it in. He ended up at a Hewlett Packard fabrication plant, whose sprawling innards were so big you could "walk for a mile and not go outdoors", and in which employees were outfitted in "big monkey suits". As David puts it dryly: "I now knew I never wanted to work in a company that big." But Dynamix was a no-go zone itself. In 2001, fresh from shipping *Starsiege: Tribes*, Eugene's development house closed its doors after 17 years of output and 80+ games. Instead, David plied his trade in the start-up before joining WildTangent games. Meanwhile, hundreds of hard-working employees at Dynamix had been turfed out into the night.

Jeff Tunnell addressed the death of Sierra and Dynamix in a 2003 interview. "As you can probably tell, I am not a fan of greedy CEOs and big corporations. A couple of individuals at the top of a crumbling empire tore down what Ken Williams and hundreds of impassioned employees built over a 15-year period in a manner of months. The employees walked away with unemployment insurance, the CEOs walked with millions in severance. Go figure."

In hindsight, it's easy to point fingers at Ken William's decision to sell Sierra to CUC in 1996 as a mistake, but there's a silver lining to every cautionary tale, and Dynamix left an indelible mark on Eugene. After the company shut its doors, the shattered pieces of its workforce started to regroup, rejoin, realign. Small cradles of creative talent joined forces, and budding development houses popped up in the region. Look no further than Mad Otter – which Damon Slye now calls home – or Spotkin, where Kevin Ryan works on his puzzle game, *Contraption Maker*. Even Jeff is still nearby, living on a farm, now in retirement.

"The horizons weren't super broad," David Selle deadpans, "but looking back, Eugene was a good place to be." During the Dynamix formative years, the company occupied the top floor of a tomato-coloured building called The Atrium in downtown Eugene on 99 W 10th Avenue. As the Sierra merger came into effect, they kept taking up new floors before moving to the imposingly-named Riverfront Research Park where they had 45,000 square feet, roughly the size of a small football field to explore. They were big-time players, and they helped put Eugene on the map.



» [PC] *Stellar 7* helped establish Dynamix as a developer and the company remade the game on DOS for its tenth anniversary.

"It's a small town, and liberal," David recalls. Perhaps it was the town's egalitarian streak that convinced Jeff, Damon and the original Dynamix that they could change the world. "Really liberal," David adds. "On our side, you had bumper stickers championing the rainbow coalition. Right next door – literally bumping heads – you had Springfield, an old logging town." Were they enchanted with the rainbow coalition? we ask. "No," David replies with a grin. "They've bumper stickers saying, 'Hey, have you ever tried to wipe your butt with a spotted owl?' – an animal that's heavily endangered."

Thank goodness for Eugene, then, because it gave us Dynamix and a host of dynamic products during a golden time in the sun. The games were generously portioned over 17 years, backed by quality 3D graphics code and imbued with big ambition. Down on the ground, in between the rise and fall of Eugene's arboreal skyscrapers, that legacy lives on. *



» [PC] *Aces Of The Pacific* had an excellent cockpit view for shooting down enemies, but you needed a decent PC at the time.

A Famous Fan

Rumour has it that Dynamix's first title, *Stellar 7*, sold fewer than 10,000 copies. But that didn't stop it reaching one VIP writer who had an affinity for games.

The author in question often inserted references to Sierra in his submarine stories. His characters are immersed in the inky blackness of the ocean for such long stretches that they play games to pass the time. However, he would also play the original *Stellar 7* - vector graphics and all - on his Apple II while exercising.

Damon struck up a friendship with the writer, and when the novel *Patriot Games* was released, he got an autographed copy alongside a handwritten note – "Dear Damon, this is my war game - Tom Clancy."


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Llamatron 2112

ROBOTRON FOR THE PSYCHEDELIC GENERATION



» ATARI ST » JEFF MINTER » 1991

One of my favourite arcade games of all time is *Robotron: 2084*. When it comes to sheer unadulterated blasting it's pretty much unmatched as an arcade game and it has always upset me that it never made its way to the Amstrad (although I eventually ended up with a decent conversion on the Atari Lynx many years later).

Its important to highlight my love of *Robotron*, as it was reignited when I discovered *Llamatron 2112* on my mate's Atari ST as an arcade-obsessed 18-year-old. While I was aware of Jeff Minter, I'd rarely had a chance to play many of his games because he mainly stuck to formats that I didn't own, like the Commodore 64 and Atari 8-bits. It was frustrating for me because I loved how he put his own spin on well-known arcade games and somehow made them feel new and fresh. Most importantly, though, he always seemed to accurately capture the frantic, yet accessible essence of what made many arcade shooters so good and married them to a hypercharged psychedelia I'd not seen since flicking through my dad's Pink Floyd records as a nipper.

It's safe to say I was hooked on *Llamatron* from the start, as it was fast-paced and delightfully bizarre in its execution. There were dodgy marijuana plants to destroy, countless cows to take out and cute goats and camels to collect and protect. Pepsi cans littered screens, the brains from *Robotron* were present and correct, turning any animals they came into touch with into ravenous zombies, while the available power-ups added to the mayhem.

I convinced my friend to let me borrow his Atari ST for the weekend in exchange for my Mega Drive so I could continue playing *Llamatron*, and that weekend ended up turning into a couple of weeks. I actually forgot to take any additional games with me, so all I played was Jeff Minter's game, but it didn't seem to matter anyway, it was just so good.

Every time Jeff Minter announces a new game I always hope that it's going to be a new take on *Llamatron*, but so far it hasn't happened. I'm hoping he revisits it after finishing *Tempest 4000*. *

AMIGA



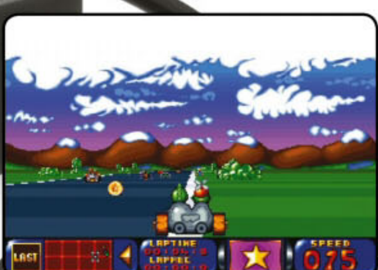
» Commodore used some pretty brave marketing to sell the CD32. Sadly, it didn't really work.

CD32

From its unveiling in July 1993 to its official demise in April 1994 when Commodore went bust, the Amiga CD32 was nothing if not short-lived. David Crookes breaks down the console's rollercoaster ten months





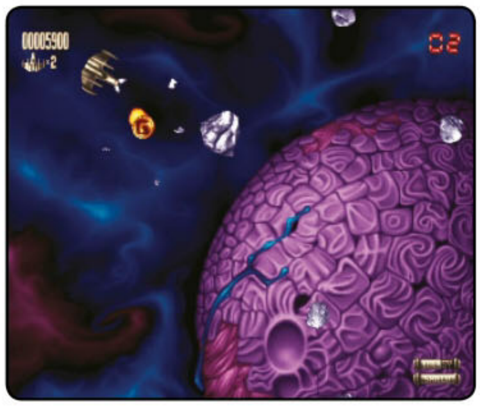


» [CD32] Released a couple of years after *Mario Kart*, the Amiga port *Bump 'N' Burn* added new theme tunes and bits of commentary for the CD32.

Plans for the CD32 had been devised in the Summer of 1992 when the design of the AGA chipset had been finished and Commodore was looking to create a more successful system than the CDTV. Rumours of this CD-based Amiga began doing the rounds at the start of the following year but only those working within or closely with Commodore really knew what was going on.

The rest caught up on 16 July 1993 when the Amiga CD32 was unveiled to a huge crowd of journalists at the Science Museum in London. "We got the presenter Chris Evans there and everything was done right," recalls David Pleasance who was Commodore's joint managing director. It was the first time in David's memory that Commodore had actually sat down and properly planned a release. "Before that, they just launched products whenever they wanted," he admits.

The launch started 30 minutes late but it didn't seem to matter. Hundreds of available seats had backsides firmly planted on them and other guests were standing and craning their necks to see what was going on. As proceedings got under way, a quote boomed over the speaker system. It was from an interview with Tom Kalinske, the president of Sega Of America, that David had read in a PC magazine weeks earlier. "Tom had been saying a 32-bit CD-based games console could not be done at the right price and that if anyone could do it, it would be Sega," he tells us. "When I read that, I was whooping around the office and I knew we had to use it."



» [CD32] *Super Stardust* was a big hit on the system and has been revisited by its developer many times since.

Then, as the shutters next to a video wall began to draw back, Commodore's console finally saw the light of day. "We had done it," David tells us of the moment of glory. And yet his joy was tinged with frustration. "Out of the blue I had been told that the CD32 was going to be in the shops in August because Commodore wanted the sales for Christmas," he says. "I fought and fought and fought against it but they wouldn't listen."

The launch was provisionally set for 20 August but, records show, it didn't hit that date. Nevertheless, the plan was to have 30,000 CD32s ready and waiting in the shops and to retail the console for £299 – which, incidentally, was the same price as the CDTV. For that, buyers would get a machine that was an Amiga 1200 at heart: a 32-bit console with a 14MHz 68020 processor, a palette of 16.8 million colours and a double-speed CD drive with audio support.

David's concern, however, was that there wouldn't be any games ready in time for the launch. "I

AMIGA CD32

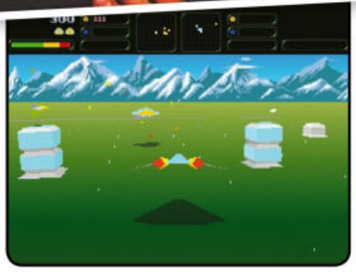


» Commodore hired Chris Evans in order to inject some life into the CD32's unveiling event.

"You can't write off a product due to a lack of software and, at that time, we had to keep going"

David Pleasance







» [CD32] *The Chaos Engine* was one of those rare CD32 conversions that actually made use of the system's additional fire buttons.

had very strong relationships with nearly all of the software publishers and we had sent development machines to a good number of them," he explains of what was basically an open circuit board nailed to a piece of wood. "They'd all signed NDAs which they adhered to, amazingly, but it was clear that we wouldn't have a large number of games available so soon."

In David's mind, the machine needed to launch the following Spring. "I had it in my head that we would launch a fabulous product and have a strong line-up of games from the start, killing everything else in sight," he says. Yet Commodore really needed the money.

Commodore showed off the machine to the American games industry at the World Of Commodore Show in Pasadena, California, between 10 and 13 September. Days later – between 16 and 20 September – the public got their first glimpse of the CD32 system at Live '93, a new consumer electronics show held for the first time at London's Olympia.

Commodore's stand was mobbed, which gave the company great confidence and, with the console in the shops on 17 September, it was certainly time to hit the ground running. The company promoted the CD32 as both the world's first 32-bit CD console and the first standalone CD console to be sold in Europe. It was well received by the press, though David reckons the press was generally "very anti-Commodore".

Developers seemed to like it too. While the console used bitplane graphics which was a pain for devs who created their games on PCs, the addition of the Akiko chip was felt a decent enough solution. It allowed byte-per-pixel to bitplane conversions on the hardware and Bullfrog's Peter Molyneux was a fan. "[It] converts the PC screen into the plane mode on an Amiga – this makes a huge difference because you've got the best of both worlds," he said at the time.

Trouble is, it took a while for players to see the benefits because there were so few games available for the CD32 in the weeks after it was released. "Not having them ready had an affect on sales," bemoans David. "But you can't write off a product because of a lack of software and, at that time, we had to keep going." Commodore vowed to focus its attention away from its PC-compatible computers. It put its weight behind the Amiga range instead.

Such focus was important since Commodore was in deep water financially. During 1993, it managed to

ESSENTIAL EXCLUSIVES



LIBERATION: CAPTIVE II

■ With so few games launched prior to Christmas 1993, the RPG *Liberation: Captive II* was a real treat. Released on 15 December and originally a CD32 exclusive, it packed 50MB of graphics, six hours of digitised speech and more than 4,000 levels on the disc. It could be played with a mouse plugged into the CD32's spare nine-pin joypad port.



DEFENDER OF THE CROWN II

■ Although this medieval-based strategy game was promoted as a sequel, it followed much the same story as the original, albeit with some additional gameplay, enhanced graphics and better sword fighting. The lack of a save feature was a bugbear – but that was actually a general CD32 problem.



THE MISADVENTURES OF FLINK

■ Developed by Psygnosis (which debuted on the CD32 with Microcosm), *Flink* also surfaced on the Mega Drive and Mega-CD but never on the Amiga computers. As a platformer it falters, but its blend of puzzles, fighting, adventure and shooting gelled well with the nicely animated characters.

lose an eye-watering $357 million so it needed the CD32 to succeed. Gamers, on the other hand, were simply pleased to see developers backing the system. Millennium released *Diggers*, and it announced *James Pond 2 – Robocod* would have £10,000 worth of animation and a brand-new soundtrack. And while Thalion claimed it was going to release *Ambermoon* on the console (but didn't), 21st Century said *Pinball Fantasies* would gain some aesthetic enhancements.

Come the middle of the month and Team17 had straight Amiga ports of *Project X*, *Alien Breed*, *F17 Challenge* and *Qwak* available at £14.99, and Gremlin launched an enhanced version of *Zool*. Claims by Commodore that 40 games would be available by Christmas fell short of the mark but the console was at least getting the backing of retailers and developers.

To boost sales, Commodore also launched a television advert. It was a typical sci-fi effort starring scientists which placed an emphasis on "incredible graphics" and "colours, so many colours".

Slowly but surely more games arrived, making good use of the 600MB of space available on the CDs. It was clear that £29.99 was to be the price point of most games – good news given titles on the Mega-CD cost between £39.99 and £49.99.

Commodore tried to lower the prices further, understanding that cheaper games would lead to greater console sales. It told publishers that the royalties it would pay for each game would be halved if the price of their titles fell below £15. But although fewer games went to that price, there was a trend for companies to create compilations.

Gremlin spruced up the graphics of its three Lotus games and put them all on a single CD for a penny under £30 while Team17 would later become celebrated for its double packs. Commodore also produced console bundles. It had originally offered only Oscar and *Digger* but it added *Wing Commander* and the poor beat-'em-up *Dangerous Streets* which lent the pack its name.

As if to prove the CD32 could do more than just play videogames, 109 consoles were used by the London Transport Museum in Covent Garden, London to display interactive information, video and animation when the venue reopened on 16 December. They were linked to touchscreen displays and the machines also powered an underground train simulator. The CD32 machine had come a long way.

Now the focus was entirely on Christmas. UK retailer Dixons was supplied with 30,000 CD32 consoles on 10 December and Commodore was confident of selling between 70 and 75,000 machines by the year's end. It succeeded in outselling the Sega Mega-CD but it was by no means a time for peace to all men.

Indeed, it was this month that David received a phone call from an outdoor advertising company. "He told me he had three large poster sites in central London which someone had paid a 50 per cent deposit on but didn't want," David tells us. "He said I could have them for half price."

One site was slap bang in front of Sega's headquarters on Cromwell Road, London – a hugely visible position. "We had the poster say, 'to be this good will take Sega ages'," he chuckles. "We could say this because it was true."

With Christmas out of the way, January began well. Rumours circulated that Commodore was in talks ►



» [CD32] Team17 supported the CD32 with ports of its games, like *Worms*, but that was far from a reason to get excited for the system.











SIMON THE SORCEROR

■ Many CD32 games were enhanced ports from the A500 but some worked very well. Adventure game *Simon The Sorceror* added digitised speech, with *Red Dwarf*'s Chris Barrie voicing Simon and lifting the humour further. Incidentally, *Beneath A Steel Sky* also had spoken dialogue, while managing to slash the 15 floppies needed on the A500 to just one CD.

DIGGERS

■ This *Lemmings*-esque strategy game was not only an exclusive for the CD32 for a while, it was also one of the first games to appear on the system. The idea was to figure a way of digging for the most gems but – its use of 256 colours within the intro aside – the game sadly didn't make the most of the console's power.

AMIGA CD32





» [CD32] *Ultimate Body Blows* was the definitive version of Team17's popular fighting game and offered an impressive amount of content.

HARDWARE WARS

AMIGA CD32



CPU: 32-bit 68EC020, 14Mhz
MEMORY: 2MB RAM
COLOURS: 16.7 million
RESOLUTION: 320x256 – 1,280x512
CD DRIVE SPEED: Double
SOUND: Four-channel 8-bit
FMV: Optional, MPEG-1 cartridge
PRICE: £299

CD-I



CPU: 16-bit 68010, 16Mhz
MEMORY: 1MB RAM
COLOURS: 16.7 million
RESOLUTION: 384x280 – 768x560
CD DRIVE SPEED: Single
SOUND: Eight-channel 16-bit
FMV: Optional, MPEG-1 cartridge
PRICE: £499

3DO



CPU: 32-bit RISC ARM60, 12.5Mhz
MEMORY: 2MB RAM, 1MB VRAM
COLOURS: 16.7 million
RESOLUTION: 384x288 – 768x576 (PAL)
CD DRIVE SPEED: Double
SOUND: 16-bit stereo
FMV: Optional, MPEG-1
PRICE: £399

MEGA-CD



CPU: 16-bit 68000, 12.5Mhz
MEMORY: 768K RAM, 128K RAM dedicated to CD-ROM
COLOURS: 512
RESOLUTION: 256x224 - 320x224
CD DRIVE SPEED: Single
SOUND: Eight-channel 16-bit
FMV: Built-in capability
PRICE: £270

with LucasArts about a potential deal to bring *Rebel Assault* and *Day Of The Tentacle* to the CD32 and while this didn't happen, January did at least see the launch of the much-heralded Full Motion Video add-on cartridge, albeit in limited quantities.

Priced at £199, it wasn't cheap but it was based on the MPEG-1 standard and it let users enjoy Video CDs at 25 to 30 frames per second. It plugged into the expansion bay at the back of the console and it hoped to be a desirable alternative to VHS. David helped promote it at the time but today he doesn't even remember taking orders for it. "I can't remember anything about the FMV cartridge," he admits. Suffice to say, it flopped.

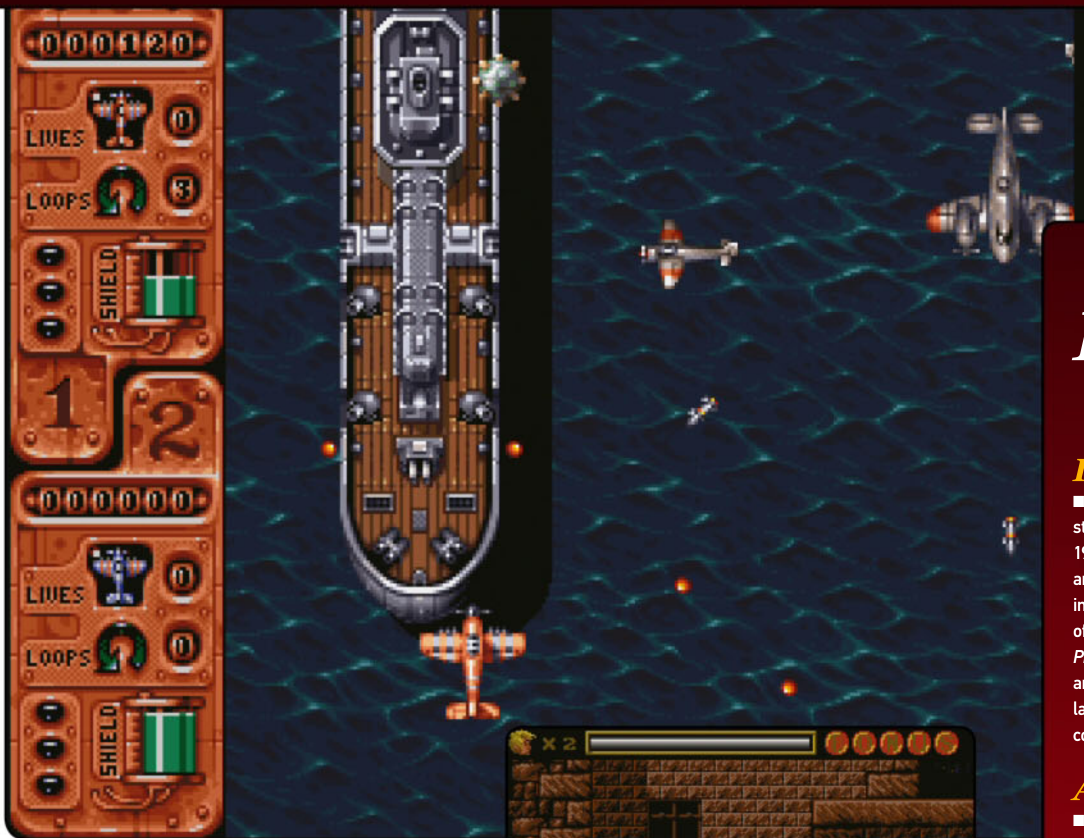
Still, it proved something of a hectic month for the CD32, with Commodore deciding it was time to unveil the console in the US at long last. It had originally pencilled this in for November but Lew Eggebrecht, vice president of engineering, showed it off at the Consumer Electronics Show in Las Vegas at the start of '94 and challenged rivals to "show us a better games player." The CD32 was set to retail at $399 and come bundled with *Sleepwalker* and *Pinball Fantasies*. The FMV cartridge would cost $250.

Commodore needed the American launch to go well, and so it pencilled it in for the end of February or early March. Although limited numbers were on sale in Canada, Commodore believed cracking the US would turn around its ailing fortunes. In the meantime, it was able to look at sales elsewhere and feel confident: in mid-February, Gallup, which compiled the sales chart, reported CD32 games were accounting for 38.6 percent of all CD software sales in the UK.

That put it ahead of CD-ROM (31.3 per cent) and the Mega-CD (27.6 per cent) and it more than slapped down Philips CD-i which could only manage a paltry 1.8 percent. Sure, it was easier finding rocking horse



» Commodore wasn't adverse to slinging mud at its rivals, it famously took a billboard ad out in front of Sega's UK office.



» [CD32] *Banshee* is one of the best shooters on the CD32, but it's a lazy port that doesn't really add anything new.



» [CD32] Ocean's *Sleepwalker* was made for Comic Relief and it involved trying to save a sleepwalking boy from harm.

poop than it was an FMV cartridge (only a few hundred were shipped out this month) but the figures gave Commodore some hope regardless, even if the CD market wasn't that huge to begin with.

"By this point, the publishers had managed to get some games out and the sales rose," confirms David. "We were also seeing more and more games being written that took advantage of the CD32 format rather than just ports of existing Amiga games. I always knew when we launched the CD32 that many of the games we knew about were three or months away," David adds. "It was good to see them come through."

Come mid-March and the CD32 had a 44 per cent share of the CD market. Psygnosis' Microcosm had also sold out, with 16,000 sales in the first few weeks of release. To capitalise on the interest, Paragon Publishing released *Amiga CD32 Gamer* magazine. "We'd visited Commodore and obtained permission to make the magazine and the cover disc," says editor Stuart Wynne. "The demos were very helpful to readers."

It was a gamble for Paragon given the number of next-gen machines that were on the horizon but it wasn't alone: *Amiga CD!* and *Amiga CD32* magazines were also published in 1994. "The Amiga had a fabulous games library so we thought there could still be loyal developers to provide a killer app," Stuart remembers. He worked with Commodore, chasing demos which took a lot of time and persuasion. "The first issue had lots of hope but not a lot materialised subsequently that could set the machine apart or which made proper use of it," he laments.

A big blow came when Commodore International announced it had lost $8.2 million and the New York stock exchange promptly halted trading of Commodore stock. Worse, Commodore had been ordered to pay $10 million in royalties to Cad Track which held a patent on a technique that used XOR to make the cursor flash. Until it was settled, a federal judge said the company couldn't import the machines into the US which was a major problem given the CD32s earmarked for the US were being made in a factory in the Philippines. "I always said having them made there was crazy – it was a five week journey by sea and it made no business sense," says David, who recounts his time at Commodore in the book *Commodore: The Inside Story*. The consoles sat idle.

Still, at least the CD32 was in the running for Best Hardware at the European Computer Trade Show, up against the Atari Jaguar, 3DO, Sega's Mega-CD and a PC card called Reelmagic. Unfortunately, on 12 April, the Jaguar walked away with the prize and, as if to compound the pain, *Rebel Assault* – the game which never did arrive on the CD32 – was named the best CD game of the show.

By now, though, Commodore International's financial woes really had caught up. Amid boardroom squabbles and debt, it had failed to renegotiate its outstanding loans and it filed for bankruptcy on 29 April. This was all the more frustrating given the CD32 was accounting for 55.6 per cent of the CD software market at this time, buoyed by games such as *The Chaos Engine* and *Elite 2*. Indeed *The Chaos Engine* had only just been bundled with Psygnosis' Microcosm and added to *Wing Commander*, *Dangerous Streets*, *Diggers* and *Oscar in The Spectacular Voyage* pack that retailed for £249. But that was of little consequence.

Commodore's assets were liquidated and a buyer was sought. Potential suitors included Amstrad, Sony, Acer, Samsung, Goldstar, Hewlett-Packard and Philips but the CD32 was effectively discontinued. Commodore UK continued, selling whatever it had in its warehouse. Commodore's dream of creating a successful console, however, was over. *

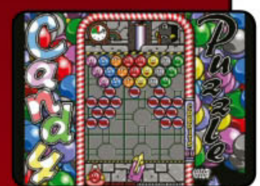
WHAT HAPPENED NEXT?

LIFE AFTER DEATH



■ Developers didn't suddenly stop making games in April 1994. In fact, *Alien Breed 3D* and *Worms* were released in 1995, along with the likes of *Brutal: Paws of Fury*, *Pinball Illusions*, *Syndicate* and *Theme Park*. More were launched in 1996 and even *Amiga CD32 Gamer* magazine continued, running for 21 issues up to February 1996.

ARCADE ANTICS



■ In 1995, the CD32 formed the basis of an arcade machine called CUBO CD32. Created by CD Express, an expansion card was plugged into the back of the console, connecting with a JAMMA board. New games were then made in-house, including *Candy Puzzle*, *Harem Challenge*, *Laserquiz* and the card game *Magic Premium*.

TOP CONVERSION



■ In September 1994, Paravision released an expansion called the SX-1 which was hooked up to the back of the CD32 and allowed a keyboard and disk drive to be connected. This effectively turned the console into an A1200 – so long as you had Workbench and a mouse, anyway. It breathed new life into the ailing machine.

DRIVING FORWARD



■ Allegedly, in the Nineties the CD32 was used within driving test terminals in Canada and they were even given away in banks to people opening an account. VanCity Saving Credit Union in Canada created a home-based banking system using the CD32 as its host. Users could pay bills and transfer funds using the controller.

UNFULFILLED DREAMS



■ David Pleasance discussed a buyout of Commodore. He now tells us he had "big plans" for the CD32. "I wanted to offer it to all of the hi-fi manufacturers and get it into their stacking systems," he says. "I believed we would achieve great volume and realise a dream of getting the machine into peoples' living rooms."

THE UNCONVERTED

Arcade games that never made it home

CHAOS HEAT

DEVELOPER: **TAITO** YEAR: **1998** GENRE: **SHOOT-'EM-UP**

■ In the wake of *Resident Evil*'s success, every developer seemed to want to show the world its own take on the biological horror theme, and this is Taito's effort. Rick and Mituki might as well be Chris Redfield and Jill Valentine, but they handle very differently in the heat of battle as *Chaos Heat* is a straightforward shoot-'em-up.

The game puts you in the role of a soldier sent in to mop up a lab disaster. Naturally, every human is dead and often zombified, parasites are running rampant and all kinds of genetically mutated freaks need to be destroyed. In practice, this usually means shooting everything in sight until you discover the key card required to exit the room and move on, although you'll often come across extra objectives such as destroying a shield generator or protecting an ally as they unlock a door. Success and failure in these efforts can change the course of the game, sending you on entirely new routes depending on your result.

A lot of options are crammed into the game's control setup. As well as being able to run and shoot, close-up attacks are melee hits which preserve your regenerating ammo. It's possible to pick up a variety of secondary weapons, including napalm, heatseeking missiles and powerful rockets. You also have access to a charged shot which gives extra power and changes the nature of your gun – for example, from a straight shot to a spread gun. Lastly, by double-tapping a direction on the joystick, you can perform a dodge roll which briefly renders you invulnerable. This is a useful technique that is essential to taking down some bosses.

It's a shame that *Chaos Heat* seems to have been forgotten as it's a fun game, especially if you're able to get a friend involved for some co-op play. It's a mystery as to why Taito never saw fit to convert this enjoyable blaster, as we can imagine it would have made a fine PlayStation release. In fact, it's especially puzzling since the company clearly had faith in the characters and setting – it released a survival horror sequel title *Chaos Break* for the PlayStation in 2000. Unfortunately, that game isn't nearly as good as the original.



■ These crates are the primary source of goodies to pick up, including points, weapons and health pick-ups. Make sure you break them open whenever you run across them.

■ After unleashing Mituki's charged shot, her regular shots will be spread shots until the blue Gun bar at the bottom of the screen runs out.



■ In this room, your goal is to escape. To do that you must disable the electrical barriers, by shooting the generators at either side of the room.

■ Not every room has instantly visible enemies – these nasty critters burrow up from underneath the floor before they attack you.

CONVERTED ALTERNATIVE

SHOCK TROOPERS

1997



■ There are a lot of similarities between the control systems of these two games – close-up melee attacks, secondary weapons and invincible dodge rolls are included in both. *Shock Troopers* didn't receive any contemporary conversions, but has become a mainstay on console download services today.

DEMOLISH FIST

DEVELOPER: **SAMMY** YEAR: **2003** GENRE: **BEAT-'EM-UP**

■ Sammy's output on the Atomiswave board didn't give the world many classic games, but this 3D beat-'em-up isn't actually too bad. As is standard for the genre, you wander along scrolling stages beating up a variety of ill-intentioned thugs, on the way to a showdown with a boss. You can batter them with various weapons found on the floor if you're bored with throwing fists, and there are special command attacks to perform including dashing strikes. When a power bar is charged, you can activate a special move that lets you take out all enemies on screen.

If this sounds in any way generic, that's because it is, although the game includes a couple of nice additions. For a start, you can attack in all eight directions, rather than just to your left or right, and you need to hit a button combo to grab items, ensuring you never miss a punch in the heat of battle.

It's easy to see that *Demolish Fist* wouldn't have made a great candidate for a home conversion, mainly due to its slightly dated visuals and skimpy content offering, so it's no surprise that no conversion happened.



» [Arcade] Remember kicking bikers off their bikes in *Streets Of Rage II*? *Demolish Fist's* developers did.

CONVERTED ALTERNATIVE

DYNAMITE COP

1998

■ Weirdly, after *Dynamite Cop* was converted to the Dreamcast in 1999, that version was then reconverted for the arcade, only with new graphics and the title *Asian Dynamite*. It says a lot about the state of the arcade beat-'em-up market that Sega could get away with that in 2006.



CONVERTED ALTERNATIVE

SUPER SPRINT

1986

■ Atari Games' classic multiplayer racing game might not have the scrolling stages of Sega's game, but it's much easier to play at home thanks to appearances on a variety of home consoles and computers including the ZX Spectrum, Atari ST, NES, PlayStation and Game Boy Advance.



HOT ROD

DEVELOPER: **SEGA** YEAR: **1988** GENRE: **RACING**

■ If you've never played this top-down racer before, you might find that it's a neat little surprise. Depending on the cabinet, three or four players can race each other through the city streets, while trying not to crash into hazards including other cars, oil drums and even speeding trains. You need to beat the time limit (expressed here as your gas tank), with a penalty for getting destroyed or falling behind. After each point-to-point race, you can spend money on upgrades for your car.

The initial release of *Hot Rod* was fun but lacked in speed, so a 'Turbo' revision was soon pushed out. This made the game a bit zippier, though not quite to the extent of the likes of *Micro Machines*. If you can get a few players on this version, it's a lot of fun.



» [Arcade] Road layouts start off simple in *Hot Rod*, but become more complex as the game progresses.

Hot Rod was actually planned for conversion to the Master System at one point – Sega's 1988 summer catalogue of games in Japan included it as part of the system's forthcoming line-up, alongside other games that eventually made it to the console. However, no screenshots of the conversion were ever sighted and no prototype has been found.

BEST LEFT IN THE ARCADE

HARD DUNK

DEVELOPER: **SEGA** YEAR: **1994** GENRE: **SPORTS**

■ Using scaling sprites to convey a 3D space is a fine idea, and one Sega utilised frequently in the Eighties and early Nineties. However, doing this with a basketball game isn't a great idea, because you can only show one half of the court at a time – and in this game that whole half is represented by a single static image, which is zoomed in to horribly blocky effect during shots.

It gets worse, though – where *NBA Jam* used two-player teams on full courts, *Hard Dunk* overcrowds the screen with six players on its half court. It's frequently difficult to discern what's going on in a match as a result, and that's not helped by the street basketball theme. Instead of wearing easily identifiable kits, your players are all dressed differently, and two identical players can appear on opposite teams. While your opponents are shown in grey, it's just not enough in the heat of the moment. The whole game is a mess, which only serves to highlight the superiority of its competition.



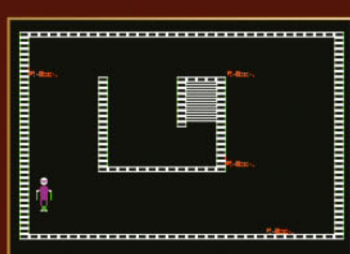
The History Of Wolfe



Wolfenstein's modern era began 25 years ago and changed gaming as we know it. Ian Dransfield chats with the minds behind the wartime madness to find out – just why has beating up Nazis always been so much fun?

***W**olfenstein 3D* **was so good that, when id Software took an early version to Sierra in 1992, the publisher quickly tabled a $2.5 million offer to purchase the pre-*Doom* dev studio.** It's difficult to understate how impactful a game *Wolfenstein 3D* was – how much it changed things, how it raised the bar, decided it still wasn't high enough and so tore it off and threw it over a mountain. There were first-person games before id's attempt, there were better games with more longevity since – most from id itself – but *Wolfenstein 3D* was the game that kickstarted everything, and made established, publishers have a 'holy shit' moment that made them slap $2.5 million dollars down on the table.

It shouldn't surprise you to hear that, in the end, Sierra's offer wasn't followed through. id was willing to sell – even going so far as to create a cute little piece of artwork to celebrate the purchase – but wrangling over payments, with John Romero requesting $100,000 up front alongside a letter of intent, meant ultimately Sierra backed out of the deal. *Wolfenstein 3D* would still happen, though. Its release directly spawned *Doom* and *Quake*, and influenced an entire genre still enjoying ludicrous popularity to this day. It didn't need $2.5 million to be a global phenomenon. It just needed the team at id to sit down and make it.



» [Apple II] The late Silas Warner's *Castle Wolfenstein* served as inspiration for the team at id Software.

"My least favourite part of *Wolf3D* was actually making the levels!" John Romero, cofounder of id and 'project specialist' on *Wolfenstein 3D*, says. "They were *so* boring to make. *Commander Keen* levels were a ton of fun because there was so much to them. *Doom* levels were even more fun to create – but *Wolf3D*'s levels were just so simple to design because there weren't that many elements to the game." This meant actually crafting levels for the game was a tough order, and towards the end of things John was having to bribe cohort Tom Hall into keeping on going with the promise that he'd be able to buy himself a Honda NSX – if only he'd finish those levels: "I would







» [PC] The latter episodes on *Spear Of Destiny* take the occult-Nazi-demon daftness up a notch or five. Yes, that's a robot in the back.

say, 'C'mon – let's finish these levels! NSX, NSX, NSX!'"

But this all jumps forward many years in the evolution of *Wolfenstein* as a series – id Software did not create the series, nor has it been the sole gatekeeper of it over the years. Rewind back to 1981 and you'll find a relatively unknown, overlooked and forward-thinking 2D stealth-adventure game for the Apple II by the name of *Castle Wolfenstein*. Created by the late Silas Warner, the original was ported to Atari 8-bit machines, DOS and Commodore 64 before being followed by *Beyond Castle Wolfenstein* in 1984. "*Wolfenstein* is the original stealth shooter," John says, "I'm really proud of the legacy of *Castle Wolfenstein* – the series that Silas Warner created out of thin air. His inspiration came while watching the 1961 movie *The Guns Of Navarone*. That night, Silas was at a 7-Eleven and played *Berzerk* for the first time. He thought about taking the design of *Berzerk* and replacing the robots with Nazis, and voila, *Castle Wolfenstein*'s idea was born. ▶

Wolfenstein Vs The Censors

How the series was tweaked and changed for other audiences

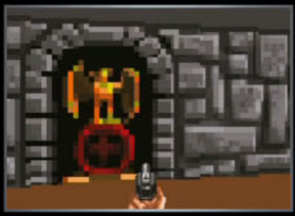


Hitler

■ The dictator was present throughout *Wolf3D*'s initial release, but by the time the game made its way to the SNES, Nintendo decided it wasn't having any of it, ordering his visage to be modified to some other, unknown Nazi. This was the first in a long list of Nintendo changes for *Wolf3D*.

Nazi imagery

■ It didn't stop at the Fuhrer's face – Nazi imagery and iconography was removed from the SNES version, so Swastikas and iron crosses were replaced with blobs and shapes unrelated to the horrors of the Nazi regime. It's an understandable change from Nintendo, even if it did all feel a little bit pointless.





Dogs

■ One of the more egregious changes to the SNES version came in the shape of the dogs. Or rats, as they became. German Shepherds were morphed into giant bloodthirsty rats, thus making us wonder just how lax the hygiene situation was in all of those Nazi-occupied castles.



Religion

■ Finally, all religious iconography was removed from the SNES version of *Wolf3D*. Todd Hollenshead remembers: "For years after that creative battle, pretty much everyone at id thought that the corporate decision makers at Nintendo were a bunch of knuckleheads. Looking back, we were right!"

Health Packs

■ Changes have occurred since the SNES version, and for different reasons than you might expect – the red cross on health kits was changed on *Wolf3D*'s 20th anniversary rerelease to a generic heart. This was because the actual Red Cross had started to complain about the use of its symbol in games.





The New Order

■ Finally, a whole game makes this list – *Wolfenstein* never saw an official release in Germany until the decidedly un-**Retro Gamer** year of 2014, when *The New Order* was granted release. It did see the expected level of censorship, however, with Nazi imagery and references entirely removed from the game.

Wolfenstein

Modding Wolfenstein

The weird and wonderful creations born from Wolfenstein



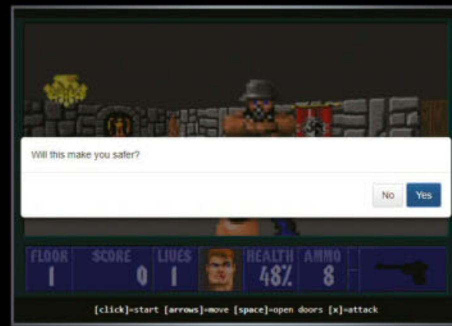
Wolfenstein 1D

■ 1992 saw the world of gaming take a huge step forward into a pseudo-3D world, but it wasn't until 2011 that we saw what could have been in the days even before *Castle Wolfenstein*. *Wolf1D* takes place on a single line – one dimension – yet still includes everything from *Wolf3D*: doors, treasure, Nazis.

Super 3D Noah's Ark

■ Originally an unlicensed release for the SNES, this religious mod of *Wolf3D* more recently saw an actual retail release on PC. In it players are tasked with rounding up rowdy ark-based animals by pelting them with food using Noah's trusty slingshot. No, there are no Nazis in it.





Dialogue 3D

■ Recent times have seen much talk of… well, talk – even when it came to the repugnant ideology of real life Nazis. Dialogue 3D popped up – a mod of *Wolf3D* that, every time you try to fire, prompts you to consider if dialogue might be preferable to violence. You end up getting shot by Nazis a lot.



"He combined his game with another of his creations, The Voice, which could play back digitized audio, which is how the talking Nazis came about. This was all very revolutionary in 1981, and unless you were playing on an Apple II back then you have no idea how awesome the game was at the time." These originals set the scene, with a castle, Nazis, violence against said Nazis, digitised sound and, honestly, not a huge amount other than that tying them to later releases. They were influential, of course, and John admits he and the id team had tried to incorporate elements from these games in the series' 3D debut: "We replicated a few of the features in the original game such as dragging dead bodies and opening crates. We even got it working so if a guard saw a dead body he tried finding the player."

That's where the similarities began to fade, though – *Wolf3D* was shaping up to be a quick run-and-gun that felt great to those playing it. "The problem is that the game came to a dead stop when you did these things," John says. "We didn't want to slow it down so we actually removed the features and left it fast." The intention – the initial idea, even – was always to make a 3D version of *Castle Wolfenstein*, but in creating the game it soon became something similar only in setting and name than anything else. What we ended up with was a game of mazes and exploration, secrets and hidden gold stashes, Nazi soldiers shouting, 'Halt!' and SS officers crying, 'Mein Leben!' when gunned down. It was nothing short of revolutionary for the time, but the worry was still there: would a reimagining of a little-known, decade-old title be able to do well?

The first of BJ Blazkowicz's Nazi-bashing adventures blew away all expectations – and let it be known that these were already high; the hype machine had grabbed firmly onto *Wolf3D* and people in 1992 were *pumped* for the release. Even with the weight of expectation on its shoulders, the game outperformed even id's expectations – a hoped-for $60,000 first royalty cheque landed with $40,000 more than that on it. "The press for *Wolfenstein 3D* was incredible," John says. "People were mentally devastated when they played this hyper-fast 70fps Nazi-killing blastfest. They wrote all about it in the pre-internet magazines of 1992. We followed up with *Spear Of Destiny* and sent it out on 18 September, 1992. So for about a year and a half after the launch of *Wolf3D* we had pretty much the most popular FPS around… until *Doom* launched."



» [PC] It looks all brown and dour in Castle Wolfenstein, but things can be brightened up… with a Tesla cannon.



» [PC] BJ here, celebrating his escape with all the glee of a man who doesn't realise there's more violence ahead.

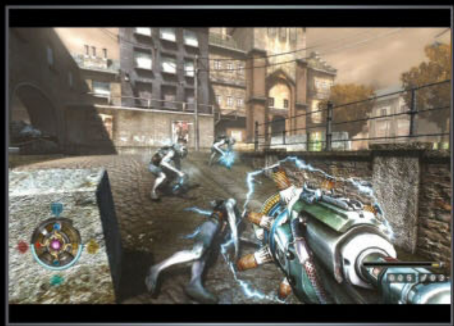


» [PC] Anybody who didn't try to shoot every single helmet off of every enemy's head is medically boring.

The Dark Army: Uprising

■ *TDA: Uprising* and its (at the time of writing) upcoming sequel, *Downfall* are a couple of standalone *RTCW* mods that bring a robust, in-depth single-player campaign with multiple missions, objectives and characters. It's a fantastic mod for a much-loved game, and well worth a download.





Retrostein

■ Few mods hit for 2009's *Wolfenstein*, but some did make it out there like *Retrostein*. This download tweaks a bunch of features in the game to make it more in line with previous *Wolfenstein* titles, and doesn't actually alter the game's content hugely. It's still worth it, though.

TrueCombat: Elite

■ *Enemy Territory: Wolfenstein* was brought into the modern world of tactical combat with this much-loved mod for *Quake III*, *Enemy Territory* and *Call Of Duty 4* engines. Even today, *TrueCombat: Elite* still has a healthy amount of players and – just like the game it's based on – is still great fun.



> "We didn't want to slow it down so we actually removed the features and left it fast"
>
> John Romero

The inevitable array of ports followed, with new weapons, missions, graphics and more added to different versions – and these ports would continue well into the mid-Nineties even while id moved further away from the game-changing game it had come up with. First *Doom*, then *Quake* – id Software had other home made projects to concentrate on, so *Wolfenstein* remained fallow but not forgotten for a number of years. An aborted attempt to make a sequel at Apogee under the stewardship of id alumnus Tom Hall became *Rise Of The Triad*, but other than that, the game that had taken around four months to develop had nothing new made for it for almost a decade.

Nine years after *Wolfenstein 3D* had written a new rulebook for games, a return was on the cards – and Gray Matter stepped up to develop *Return To Castle Wolfenstein*. While id had moved on from the series, there was still a lot of love for it internally. "Many of us wanted to see a new *Wolf* game made and were searching for a development team," Todd Hollenshead, then-CEO of id explains. "We knew Gray Matter well and had been impressed by their work on *Redneck Rampage* (as Xatrix) and on the *Quake II* mission pack they developed for us. Drew Markham, the studio head of Gray Matter, came to our offices one day and pitched us on the idea of him and his team developing a new *Wolfenstein* game.

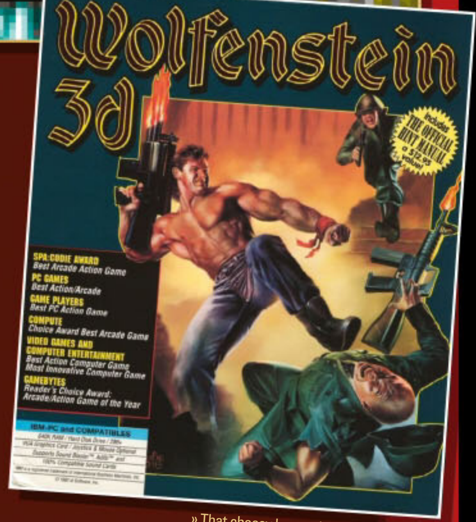
The demo Drew showed us that day was jaw-dropping. It was a perfect demo because it captured the imagination of what the potential could be for a modern *Wolfenstein*." This dark, atmospheric reimagining of *Wolf3D* brought a more robust storyline to the fore along with a much greater emphasis on the occult – along with bringing back BJ and his proclivity for shooting Nazis in the face. "When Drew left the office, we all knew that he was going to be the guy we handed the franchise over to take forward," Todd adds.

One of the people who worked on the pitch demo was Maxx Kaufmann, art director on *Return To Castle Wolfenstein*, who explains the process. "We did a snow level demo, there was a courtyard and a little interior of a castle," he says, "One of the funny things was we had an alarm – if you didn't kill the guys in the proper amount of time a guy would run off and set off the alarm, and the alarm was from *Raiders Of The Lost Ark* – the woman yelling, 'Alarm!', so it was pretty funny. We just put in our take on what we thought *Wolfenstein* would be, and it was cool snowy outdoor castle little level, it couldn't have been more than like five rooms – but it was a combination of the five rooms, the interior and exterior and the AI having the ability to set off the alarm that I suspect was what made them go with us."

With the development team chosen, work began with Gray ▶



» [PC] Just when you thought Nazis were bad enough, along come the mutant Nazis with guns in their chests.



» That cheesy box art has a 'so bad it's good' appeal today.

Wolfenstein

No More Nazis

Seven bosses that defined the series



Mecha Hitler

■ If you can think of a more iconic final boss (at least until the expansions arrived), you're better at this than we are. How could *Wolfenstein 3D* make the Führer that bit more threatening on a face-to-face level? Put him in an ostentatious dual-chaingun-toting mecha suit, obviously.

The Grösse family



■ Hans, Trans, Gretel, Mans, Pans and Fans – as well as 'Dr Gross' – have been appearing throughout *Wolfenstein*. Their main period of antagonism is in *Wolf3D*, where the whole family is battled as you progress, but it's just Hans who makes a starring return in 2009's *Wolfenstein*.



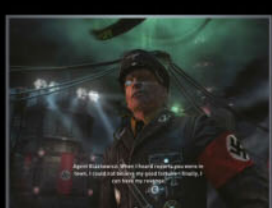
Devil Incarnate

■ Just as you think *Wolf3D* can't get more odd, along comes the Devil Incarnate. The very last boss fight of all the game's official episodes is against an enemy far more suited to *Doom*. This proclivity for the occult, though, would lead to far more wackiness in future titles.

Harbinger



■ The Harbinger Of Doom pops up in the RPG, and you might just recognise him. Yep, he's the Cyberdemon pre-'cyber' prefix, lacking in his metal leg and rocket launcher arm. *WolfRPG* manages to fill in the gaps as to just why this particular demon opts to go Cyber.



Wilhelm 'Deathshead' Strasse

■ Hitler might be the overarching big bad, but it's Deathshead who reigns over the *Wolfenstein* series as a whole. This maniac pushes his occult practices and foul experiments on innocents and Nazis alike. An all-round prick.

Queen Geist



■ Demons are one thing, but what about interdimensional insects from the Black Sun Dimension? Just as you think you're going to battle something sane at the end of 2009's *Wolfenstein*, along comes mama bug to make you go '... huh?' Bring back Mecha Hitler.



Heinrich I

■ This chap was a German prince who died 1,000 years before you fight him in *Return to Castle Wolfenstein*. His resurrection fits in nicely with the Nazi obsession with raising an army of the undead, and while the fight is unspectacular it is still memorable. In the good way.



» [PC] Ahead of its time in so many ways, *Enemy Territory* marked the shifting point for online shooters.

> "There was ton of World War 2 research that went into the development"
> Todd Hollenshead

Matter reporting to id, which was working directly with Activision as a publisher. While the setup might have made for headaches with other studios, this was a relationship that ran relatively smoothly: "Really id just let us go. BJ Blazkowicz – what he looked like and how he was represented – was a big deal," Maxx explains. "The story they let us go with – they had a knowledge of it, but I don't remember us changing gears or anything with what we wanted to do there. My impression was that they liked what we did and they had trust in us and thought we were going to do a good job." It was elsewhere id did step up to the plate – specifically to manage the expectations of the publisher. "They told Activision, 'The game's going to come out when it's going to come out, and it's going to be a good game.' They absolutely made sure that Activision didn't rush," Maxx remembers.

Instead of a master-servant relationship, *RTCW* was made with collaboration and a spirit of helpfulness in mind. While id's involvement was limited, people from the studio were involved in helping out with areas like animation, advising on art and helping to research in areas like World War 2 timelines for added authenticity. In a game featuring robotic, Tesla-coil-powered undead Nazis. "There was a ton of World War 2 research that went into the development," Todd explains. "Including uniform designs, weapons (both actual and fantasy), and even locations for parts of the games to take place. I think that helped us convey a more compelling single player narrative and helped make the player feel like a war hero saving the world from Nazis."





» [iOS] The RPG take on BJ's punching adventures was a brilliant little distraction on mobile devices.

But things were by no means po-faced – Maxx pointed out some of the best fun he had in making *RTCW* involved the outlandish themes featured in the game. "The idea this Nazi technology had gone beyond, so you had these Frankenstein creatures, the electrical currents going through them and stuff – it just added to the visual interest and excitement. Excitement is a term I would use on our end to do something that was different – it wasn't just straight World War 2." Fun doesn't immediately mean it was an easy process, of course, and Maxx recalled how being given a single day off during development was cause for celebration: "I was so excited to have a Sunday off in a month," he laughs. "I was excited about having one day off. That's how crazy we were working. It was every day of the month, and if you had a day off, you were excited. I don't know if I could do that now, I was young then – but I just remember, it seems so funny now, being excited to have a day off: 'Thank you! Oh my god I have one day off! This is great!' Like, you couldn't do your laundry, you couldn't do anything… you weren't even in your house that much that you could get it dirty."

Regardless of how the dreaded crunch might be viewed through a modern lens, the fact is *Return To Castle Wolfenstein* released to rapturous applause, greedily guzzled up by players eager to see what the homecoming king could bring to the genre it lit a fire under. Some of those players were even located inside id's office. "*RTCW* is my favourite of the franchise and one of my all time favourite games," Todd says. "I can't even remember how many times I played the entire single-player game start to finish. We would have contests at id to see how far you could get using only the knife or until the alarm was sounded and guards were called on you while the game was in development."



» [PC] It's always a bit awkward when you get a bit of *Quake* in your *Wolfenstein*, but what can you do?



» [PS4] John Romero has said he is very impressed with where MachineGames has taken *Wolfenstein*.

The game ended up with a much bigger impact on the wider sphere of things, though, thanks not to its 'good versus evil – gone crazy' premise (copyright Maxx Kaufmann, 2017), but because of something *Wolf3D* didn't feature in the first place: multiplayer. With then-unique modes based around objectives rather than just killing anyone you saw, class-based systems and an early capture the flag all on offer, it delighted all but some complete *Doom* and *Quake* purists. And it was from the healthy multiplayer scene on *Return To Castle Wolfenstein* that an entire developer was spawned, Splash Damage.

"*RTCW* almost didn't have any multiplayer," Todd reveals to us. "Gray Matter was behind schedule and had no resources to put on multiplayer. From id, we enlisted Brandon James from Nerve to sit down with a few of us and come up with a whole new design and from that point single-player and multiplayer were developed almost completely independently with the exception of id being in the middle, guiding and assisting with both." Part of that process saw the enlistment of mod teams to help with things like building new maps and – in the case of *Quake III* map pack veterans *Splash Damage*, then a ragtag bunch of amateurs – help with development of patches. This relationship built up between the fledgling studio and the masters at id soon led to bigger plans, with the small team at Splash Damage putting together a single-player demo for a *RTCW* expansion it had been told about.

"We were asked to pitch for a *Wolfenstein* project – I think it was a mission pack for *RTCW*," explains Arnout Van Meer, cofounder of Splash Damage. "So what we did, as a multiplayer team which had only worked on multiplayer content, was pitch a single-player mission for the game. We managed to get a full level with full voice acting, NPCs, new weapons and more done in a week – we sent it to Activision on a





» [PC] The speed of *Wolfenstein 3D* is always talked up, and it really did make the experience – but those death animations shouldn't go unmentioned.

Wolfenstein





» [PC] Punching a Nazi is always going to be the best way to do things, but when you can't get close, you can always disintegrate them.

"It was a really good game, but it was just the most colossal stroke of good luck"

Ed Stern

▶ Sunday and when they got back to us they gave us a multiplayer project. Which made a lot more sense."

This project shifted from a mission pack to a multiplayer-only add-on, rebadged and renamed as *Enemy Territory: Wolfenstein*, and suffered through a fair bit of uncertainty and confusion until its eventual release as a free, standalone multiplayer game. Rather than being ignored and forgotten, it – like *Wolfenstein 3D* before it – set the standard for the genre, blew the gaming public away and, ultimately, resulted in those at Splash Damage earning the team full-time careers in development. "I don't know what Splash Damage would even be if id and Activision hadn't decided to put *Enemy Territory* out as a free goodwill gesture," says Ed Stern, lead writer at the studio. "It was a really good game, but it was just the most colossal stroke of good luck. There wasn't anything like it at the time."

Under the stewardship of id and Activision, Splash Damage went through a huge learning experience in development of *Enemy Territory*, cutting content, dealing with bottlenecks, fiddling (then unfiddling) grenade physics and so much more. But all along it was supported by the established studio and publisher, partly because the game being made was so very *new*. "One thing we started doing was having RPG elements, introducing XP to a first-person shooter," Arnout says. "It made it so much more accessible to players – you could die while going for that objective, but you improve over time and your character gets better. We were one of the first games to do that."

While the impact of *Enemy Territory: Wolfenstein* is still being felt in the world of online gaming as a whole – so much of what it introduced, or at least popularised, is the standard these days – it was the *Wolfenstein* series that briefly took the RPG element to heart, with the release of *Wolfenstein* RPG on iOS in 2008. This was a fine distraction in the series, but not really enough to keep the committed fans happy – they wanted something new, something big, a continuation of what began with *Return To Castle Wolfenstein*. They got… *Wolfenstein*.

"I think Raven always believed they had great ideas to bring to *Wolf*, but were thwarted by that awesome demo that Gray Matter gave us," Todd explains. "Nearly ten years later on, they finally got their chance to pitch us on all their ideas with a cool demo of their own." With Activision keen for Raven and id to work together – because sales figures – and Gray Matter no longer existing, the decision to pass on the *Wolfenstein* mantle to another studio once again was taken. Jason Mojica, level designer at Raven on *Wolfenstein* 2009, was just a junior on the project but saw how eager even the veterans were to make something great. "Our veterans were on point when nothing was holding them back, they were a powerhouse of raw dev. As a junior at the time, it was such a nice place to be, soaking up experience. They were very good at keeping an open mind and listening to everyone's suggestions. We had a very strong team mentality."

But even with the talent at the helm and the enthusiasm of working on an already legendary series, the reputation of *Wolfenstein* 2009 ended up being, it's fair to say, *not stellar*. The game was serviceable and had some nice ideas – it looked good and played well enough – but there was a spark missing from it that people expected from such a trailblazing series. All the same, those who worked on it still had a fondness for it. "Back in 2008 I was very much a junior, just enjoying the process around me," Jason says. "I didn't have much thought on the holistic design of the game. The flaws or issues that occurred weren't as noticeable to my eye. Now, after being in the industry for so long, those types of things are pretty glaring. I would agree with some of the criticism, but It's hard for me to think negatively about the game, since I enjoyed working on it so much." And Todd agrees, "*Wolfenstein* 2009 gets overlooked. I think much of that has to do with

» [PC] The 2009 *Wolfenstein* title from Raven introduced magical powers for BJ. It was… okay.





» This is how close id Software came to being owned by Sierra back in 1992. The deal ultimately fell apart.





it being released in the middle of a console transition and a development philosophy shift away from just totally selling out for the PC game."

So the series remained dormant once more, this time with players not quite as eager for the next entry to the series. Of course, with the ravenous hunger not quite being there from the buying public, there was the shortest gap yet between two mainstream *Wolfenstein* releases. We saw another gap though this time it was only five, until Bethesda (now owners of id Software) handed the licence to MachineGames. How did they turn out? Well, we asked John, the main proponent for making *Wolfenstein* what it is today, for his thoughts. "I think the most recent *New Order*/*Old Blood* games were so well done. I'm a big fan of them," he says. "Awesome graphics, super violence, great story. Really, it's just so well made. We brought the series back to life with our 1992 *Wolfenstein 3D*, followed by *Spear Of Destiny*. For a while it was looking like *Wolfenstein* would be coming back every ten or so years.

"It's nice that it's such an active series now with Bethesda at the helm. Silas [Warner] would be proud." ✱

Conversion Capers



PC/Linux

■ The original release has been tweaked and buffed up to a nice, more modern shine – or you can just play the vanilla version via DOSBox on both Windows PCs and Linux machines. Either way you're in for some nostalgic fun.



Classic Mac OS

■ Using the Jaguar port as a jumping off point – itself building on the SNES port – the Mac version of *Wolf3D* saw high-res graphics, modified levels and features like new music, crisp sound and recreated par times for each level.



Xbox

■ Publishers might want to charge you for every little extra under the sun these days, but back on the original Xbox all you had to do was complete *Return To Castle Wolfenstein*'s campaign to unlock a port of *Wolf3D*. It was imperfect, but a nice bonus.



PS3/Xbox 360

■ A direct port of the original PC version, *Wolf3D* for the last generation of consoles should have been perfect. Alas, the original's 70fps was impossible to recreate on modern displays so these versions felt slow to those weaned on the 1992 game.

SNES

■ Long before *Doom* was even a twinkle in Nintendo's eye, *Wolfenstein 3D* came to the SNES. While notable for censorship, it did add flamethrowers and rocket launchers to the player's arsenal, and is remembered as functional – if unspectacular.



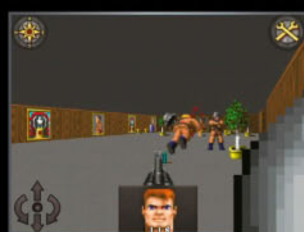
3DO

■ Similar to the Mac version in looks the 3DO was unable to make *Wolfenstein 3D* its killer app. A reworked soundtrack might have been nice, but keeping cut-down levels and removing the ability to sneak up on enemies worked against this version.



iOS

■ You had to expect the controls would be fiddly on a touchscreen, but *Wolf3D*'s mobile debut certainly functioned well enough. While the proof of concept was there, the popularity waned and this version was rather quickly forgotten.



Mega Drive

■ An unofficial port made by one committed person, *Wolf3D* for the Mega Drive released in 2014 and has seen updates all the way up to April of 2017, improving performance and adding features. An impressive feat.





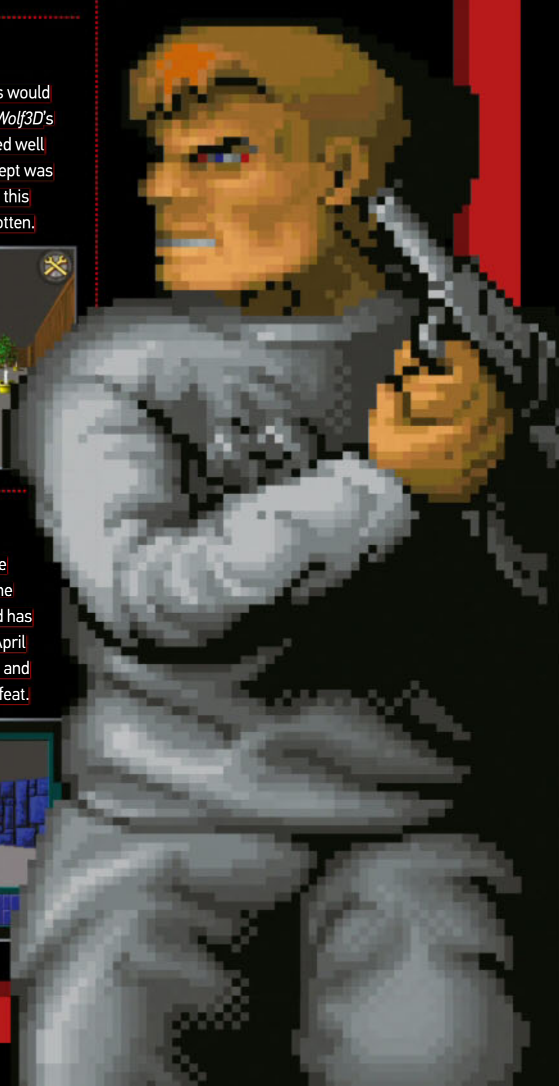
Jaguar

■ One of the better ports saw improved graphics, audio, difficulty levels and a bunch of the new features introduced by the SNES. It was left in the dust by – as fate would have it – the fine port of *Doom* arriving on the console.



Game Boy Advance

■ There was a time when playing *Wolf3D* on a handheld was a ridiculous idea, but the version for Nintendo's handheld surprised everyone with how solidly it ran. Based on the PC version, GBA *Wolf3D* saw no censorship and ran… okay.



Hardware Heaven



EDITOR'S CHOICE
Advance Wars 2: Black Hole Rising

Turn-based strategy might not seem like the best fit for a handheld console, but Intelligent Systems' intuitive take on the genre is perfectly suited for gaming on the go – each action is quick and it's possible to save at any point. To be honest, though, this isn't a game to take on the bus – it's the kind you take to bed to finish a mission, only to realise that you're still up at three o'clock in the morning and work tomorrow is going to suck. Both *Advance Wars* games are great, but we slightly prefer the expanded and refined sequel.





Game Boy Advance fact

■ To compensate for the console's dark screen, many SNES conversions had their colour palettes lightened for GBA, including *Super Mario World* and *Donkey Kong Country*.

PROCESSOR: ARM7 32-BIT CPU (16.8 MHZ)
RAM: 256KB MAIN MEMORY, 96+32KB GRAPHICS MEMORY
GRAPHICS: 240X160 DISPLAY, UP TO 512 COLOURS (FROM 32,768 PALETTE) 128 SPRITES PER FRAME, HARDWARE SCALING AND ROTATION EFFECTS
AUDIO: 2X 8-BIT DAC, 2X SQUARE WAVE CHANNELS, 1X WAVE CHANNEL, 1X NOISE CHANNEL
MEDIA: ROM CARTRIDGE (UP TO 256 MEGABIT)
POWER: 2X AA BATTERIES (15-HOUR LIFESPAN)



Game Boy Advance

» MANUFACTURER: Nintendo **» YEAR:** 2001 **» COST:** £89.99 (launch), £12+ (today)

When Nintendo dropped the Game Boy Advance into the hands of gamers around the world, it wasn't a moment too soon. Players had long been yearning for a more powerful portable, and though rumours of a 32-bit, full-colour Nintendo handheld had been swirling about the games press since the mid-Nineties – 1998's Game Boy Color was a minor upgrade that clung to old 8-bit tech. The Game Boy Advance finally delivered on the old rumours, serving as a 2D powerhouse with SNES-style graphics (and indeed, quite a few SNES conversions) as well as offering rudimentary 3D capabilities. It was backwards compatible with the old software, too.

The GBA was also a design revolution for the Game Boy brand. The old vertical orientation was discarded in favour of a more comfortable setup, with the D-pad and buttons either side of the screen, and new shoulder buttons were added. Up to four players could participate in link-up games using a single cartridge. The new widescreen display was the machine's only real fault – the non-lit screen was far too dark without an external light source, leading to many aftermarket backlight mods and eventually the revised Game Boy Advance SP model. *

THE MAKING OF



CTR: CRASH TEAM RACING

Three platformers into the Crash Bandicoot series, Naughty Dog was experiencing sequel fatigue. Dan Arey tells Rory Milne how the firm kept things fresh with a bandicoot-based Mario Kart clone



IN THE KNOW

- » **PUBLISHER:** SONY
- » **DEVELOPER:** NAUGHTY DOG
- » **RELEASED:** 1999
- » **PLATFORM:** PLAYSTATION
- » **GENRE:** KART RACER

Arguably, the PlayStation didn't need a mascot, but Californian-based developer Naughty Dog viewed the system's initial lack of a digital frontman as an opportunity, and by late 1998, the company's massively successful *Crash Bandicoot* character had become the PlayStation's answer to Sonic and Mario. However, designer Dan Arey remembers the third *Crash* platformer draining his team's batteries and prompting them to seek a fresh challenge. "We had done three *Crash* games," Dan begins, "and *Crash Warped* had been a really, really intense nine-month project. We were in meetings as *Warped* was finishing up, thinking about what our next project was going to be. And we came to this idea that we didn't want to do a fourth *Crash*, because the team had done so much of that. We wanted to do something fresh, but we loved the universe and we loved the characters. And, of course, Sony was pushing for one more *Crash*. For Sony, *Crash* had basically become its de facto mascot."



» [PlayStation] Crash's palms start to sweat as he realises he may have misjudged his jump.

So in order to square this circle, Dan and his team pitched the first fully-3D *Crash* title in the form of a kart racer they called *Crash Team Racing* – or *CTR* for short. "The *Warped* camera system was sort of locked in place and it had a precalculated number of polygons. But we thought we were getting to a point where we could actually do something 3D that didn't require precalculations, so you could move the camera around a lot more latterly. We had all these 3D art assets, we had a rich set of characters and a rich universe. We had so many cool locations that could make the perfect racing universe. We were also playing lots of *Mario Kart*. So we were like: 'Can we do this? It might be a little different, a change of pace for the team.'"

After gaining approval for *CTR*, the team – with one exception – applied the finishing touches to *Crash Bandicoot: Warped* before taking a well-earned rest. "We always released our Christmas release, took a month off, and then started something fresh," Dan recalls. "That was how it would work. But Danny Chan began development of the *CTR* engine while we were still in production of *Warped*; we then took a month off and started the full production of *CTR*. As soon as we came back, we were immediately planning on what kind of racing mechanics we were going to use."

The first mechanic to emerge from the team's planning was a 'powerslide' inspired by a drifting technique popularised in the East, which as Dan notes was tested out on blocky makeshift competitors. "One of the things Naughty Dog always believed in was rapid prototyping. The idea was you couldn't find the fun of the game in the abstract, and



» [PlayStation] Crash tries to steal pole position from his nemesis, Dr Neo Cortex.







» [PlayStation] The frontrunners on the Crash Cove course catch some hang time by speeding over a ramp.

"The power slide was in homage to the power drift mechanics in Japanese racing"
Dan Arey

you certainly couldn't figure out what was fun after you spent 17 months making it look pretty. You had to get it up fast, play it in a rough form and iterate as quick as you could. So we brought stuff together in block form very quickly. The first thing we wanted to do was get a mechanic up. We wanted to figure out our own version of a 'slide' mechanic. The powerslide was in homage to the power drift mechanics in Japanese racing; we wanted to have a flavour to how the joystick worked around corners."

Further planning followed, including discussions on where the courses for *CTR* were going to be set. "We had so many interesting locations that we had already put together," Dan reflects, "so we could call from all the different levels from the previous *Crash* games. We knew we were going to do a lot of the Egypt locations and all the island theme stuff, and we were going to experiment with some new themes."

As well as themes, of course, *CTR*'s tracks needed structure and features, the responsibility for which fell primarily to Dan and his codesigner Evan Wells. "Every single course we approached the same way you might approach a platformer level – there were main pathways and secrets everywhere," Dan explains. "There were secret shortcuts where you could jump, and 'hang time' became part of that. Hang time was this idea where you got as much airtime as you could to get the biggest boost possible when you landed. That was, I think, my proudest achievement. So ▶

CRASH, BANG, WALLOP!

A crash course on CTR's power-ups



Tracking Missiles
■ Basically *CTR*'s version of a Red Shell. If you collect ten Wumpa Fruit before firing one it becomes 'Juiced Up,' which increases its accuracy.

Bowling Bombs
■ These offer two options: roll one towards an opponent and hope it makes contact or roll one out and detonate it when someone enters its blast radius.





Power Shields
■ Although these offer protection from a single weapon or obstacle for a few seconds, when Juiced Up the single hit point lasts until you need it.

Explosive Crates
■ Normally, these sit on the head of whoever drives into them and then explode after a countdown, but if Juiced Up then they explode on contact.





N. Brio's Beakers
■ When karts drive into regular beakers they spin out of control, when Juiced Up, beakers cut their victim's speed and change their held weapon.

Aku Aku Mask
■ Arguably *CTR*'s best power-ups, these provide invincibility and additional speed, and they send opponents flying when you drive into them.





Turbos
■ The name of this one says it all: Turbos give you a short burst of extra speed. When a Turbo is Juiced Up, it gives you an even faster speed boost.

N Tropy's Clock
■ As well as cutting your opponents' speed, N Tropy's Clocks causes them to spin out of control. The effects last longer when it's Juiced Up.





Warp Orbs
■ No prizes for guessing the inspiration for these – they're blue and target whoever's in first place! They also wipe out racers on the centre of the track.





» [PlayStation] The enchanted Aku Aku mask rockets an invulnerable Crash along the Mystery Caves course.





» [PlayStation] Crash takes third place from Tiny as the pair hurtle around the Roo's Tubes track.



“We would videotape players and questionnaire them, and we’d also watch them behind glass”
Dan Arey

▶ those became the themes of every level: where could you get the big jumps, where could you get the shortcuts? We would sit down and lay this stuff down on paper. Then we would have artists come in the room and they would add their ideas, and we would all work together in little pods for each of the levels.”

Beyond core level design, the team enhanced *CTR*’s courses with set-pieces to compliment each track’s theme, such as a skater’s dream of a half-pipe in the game’s sewer stage. “We didn’t actually think the half-pipe was going to work,” Dan concedes. “There were a lot of issues with collision, with the way the camera rotated, and a lot of challenges to the half-pipe mechanics. But once we got the hang time thing going, it made sense that it almost felt like skateboarding. We wanted that feeling of jumping off a half-pipe and landing for the turbo-boost, and getting the super-boost on the second one.”

In keeping with kart racing tradition, *CTR*’s tracks were subsequently scattered with power-ups, including an array of weapons that provided Dan and his team with a tricky balancing act. “It was really difficult, because some players were just naturally skilled. And when you added the missiles, and you added different mechanics on top of them, you had to very careful. So we played around with regulation speed and the probability of what came out of the crates, and I think we came to a pretty good balance.”

In contrast to other kart racers, *CTR*’s vehicles were being built for manoeuvrability. “Control was part of our DNA,” Dan reasons. “Everything had to be responsive, because if you didn’t feel like you were in control then you blamed the game as opposed to blaming yourself. So the player could die a lot and still forgive us.”

Additional concessions to fair gameplay followed, including an ingenious piece of adaptive difficulty that gave *CTR* both realism and humour. “We wanted a living world; the fact that the characters shot at each other made it feel like there were other real players,” Dan observes. “If the player was lagging then the front characters would shoot at each other more causing them to crash more, which gave the player more of a chance. The game adapted to you, so it was better for skilled players, but a little bit kinder to players who needed a bit of help. Also, it was really a joyous moment to watch one character shoot another! There was an explosion, the smoke, the flying and the bouncing. And it was just fun to have them bouncing and you trying to avoid them; it was all part of the interaction.”

CTR included an ‘Adventure’ mode, which the *Crash* team were building around a narrative-driven sequences of races. “It was a lot of extra work,” Dan admits, “but we had these great characters, this great world, and we just felt compelled to tell some kind of story with it. It was bolted on a bit, but it was fun, and it allowed players to have some progression and some sense of continued play.”

As the *Crash* team’s deadline approached, however, certain features had to be cut in order to keep *CTR* on schedule, and so plans for making antagonists Nitros Oxide and Komodo Moe playable were dropped, and Crash’s pets Polar and Pura became solo drivers rather than sharing a kart. “We loved Nitros, but there was only so much we could do,” Dan points put. “We had to make decisions, and that’s all it was. It was simply based on schedule and resources. I think Nitros, particularly, would have made sense. But in the end, these were just choices we had to make.”

Instrumental to the decisions made during *CTR*’s development were an army of playtesters, which the team relied on for input throughout their racer’s development. “We playtested the heck out of it!” Dan enthuses. “You know, continued adjustment. We



» [PlayStation] Mastering the powerslide is key to performing well on the ornate Cortex Castle course.



DEVELOPER HIGHLIGHTS

CRASH BANDICOOT
SYSTEM: PLAYSTATION
YEAR: 1996

JAK AND DAXTER
SYSTEM: PLAYSTATION 2
YEAR: 2001

UNCHARTED: DRAKE'S FORTUNE
SYSTEM: PLAYSTATION 3
YEAR: 2007

CRASH TEAM RACING 101

■ A polished combination of kart racing standards and fresh mechanics, *Crash Team Racing* delivers the expected solo and multiplayer modes, eclectic courses, exploration, hidden shortcuts and unlockables, but also introduces innovative powerslide and hang time mechanics, which respectively boost your speed with *Track And Field*-inspired button bashing and high jumping.

would do testing on-site at Sony. We would videotape players and questionnaire them, and we would also watch them behind glass."

The reward for all of the hard work that the team had put into *CTR* came in the form of glowing reviews and a warm reception from players following the game's release. "We considered it a great success," Dan beams. "I know a lot of people loved the Battle mode. I mean, that's all I needed to hear! You know, the whole idea of people playing four players and laughing and groaning and screaming. That was the magic sauce of the game to me; it kept the game going long after the Adventure mode was over."

When asked to reassess *Crash Team Racing* with the benefit of hindsight, Dan highlights his pride for the game's skateboarding-inspired aspects and offers little in the way of alterations. "I'm still extremely proud of the game. It felt like we had achieved all the goals we had set out to achieve in a rich universe. It had pretty interesting mechanics, I still am very proud of hang time. I think the hang time mechanic was wildly innovative, and I had a personal say in that. What I would change are little incremental things, it would be little AI changes and the balance. There are a couple of levels that I think we could have worked on, even better shortcuts, but I think, generally speaking, that it's a product of its time. And at its time it did what it was supposed to do; it was fun, and it was exactly what everybody wanted from a *Crash* game." *

Many thanks to Dan Arey for revisiting *CTR*.



LOADS OF MODES

A rundown of CTR's various modes



Adventure

■ A narrative-led sequence of races where a solo player unlocks additional tracks and chapters of a story by taking first place in unlocked courses, obtaining collectibles and beating bosses in one-on-one races. The story moves forward via animated cutscenes where hints and taunts are conveyed by the storyline's key characters.

Time Trial

■ Essentially a practice mode where a single player is timed to complete a set number of laps on a selected course without the distraction of power-ups or opponents. There's also the option of trying to beat your previous time, where your last recorded run is represented by a ghostly, intangible version of your chosen character.





Arcade

■ Offering two options for one or two players, Arcade mode allows you to race against a selection of computer-controlled characters on a course of your choosing, or enter a 'Cup' race, where four courses are raced on. Points are awarded to the top four competitors in each race and the racer with the highest overall score gets the cup.

Versus

■ Similar to Arcade mode, except that Versus requires a minimum of two players and allows up to four players to race head-to-head. The other difference is that Versus is restricted to real players, meaning that there are no CPU opponents. In keeping with Arcade mode, Versus offers single course races and 'Cup' tournament options.





Battle

■ A complete departure from the other modes, Battle pits two to four players against each other in arenas rather than racing tracks, and revolves around combat rather than racing. As well as an eclectic choice of arenas, prematch settings allow players to customise everything from hit points to battle length to the power-ups available.



YUZO KOSHIRO

Chiptune Champion

No matter the hardware, Yuzo Koshiro has remained one of gaming's most revered musicians. Nick Thorpe speaks with him about his music, his development studio and more…

In an era when many Japanese game developers were essentially anonymous, with their contributions hidden behind pseudonyms, Yuzo Koshiro was able to stand out as a star. Thanks to his credits at the beginning of games like *The Revenge Of Shinobi* and *Streets Of Rage*, well-informed gamers quickly came to recognise Koshiro for his excellent music – a reputation he has maintained for over three decades in the gaming industry. But beyond that, he has also been successful in the wider game development business, being a key part of the independent developer Ancient since its foundation.

Musical skills were imparted to Koshiro from a young age. He started to learn the piano from his mother, Tomo Koshiro, as a youngster and was later taught by Joe Hisaishi, a composer who would become famous for his work on anime films, particularly those by Studio Ghibli. Koshiro first got into computer music in his late teenage years, during the mid-Eighties, thanks to his love of arcade games. "I like a lot of videogame soundtracks from the Eighties, but it's impossible to pick just one favourite. I especially love the sound of the games that Konami, Sega, Namco and Taito made back then," he explains. "If I had to choose one representative title from each of these companies that I particularly like, it would be *Gradius*, *Space Harrier*, *The Tower Of Druaga* and *Darius*."

He soon turned to recreating his favourite tunes from these games. "In the Eighties, I used to create my own sound drivers on a personal computer by NEC called PC-8801SR, to go along with the sound files that contained my compositions," says the composer, reminiscing about the beginning of his career. The PC-8801 range of computers was the most popular of its day in Japan, equivalent to the ZX Spectrum in the UK. Much like the Spectrum, the PC-8801 had been introduced with basic beeper sound, but in 1985 the PC-8801SR added improved FM synthesis sound hardware. "The YM-2203, an FM sound chip by Yamaha that was widely used at the time, could only output six channels, so in order to make good music, programming skills were absolutely essential," explains Koshiro, regarding the need to create the drivers as well as the musical compositions.

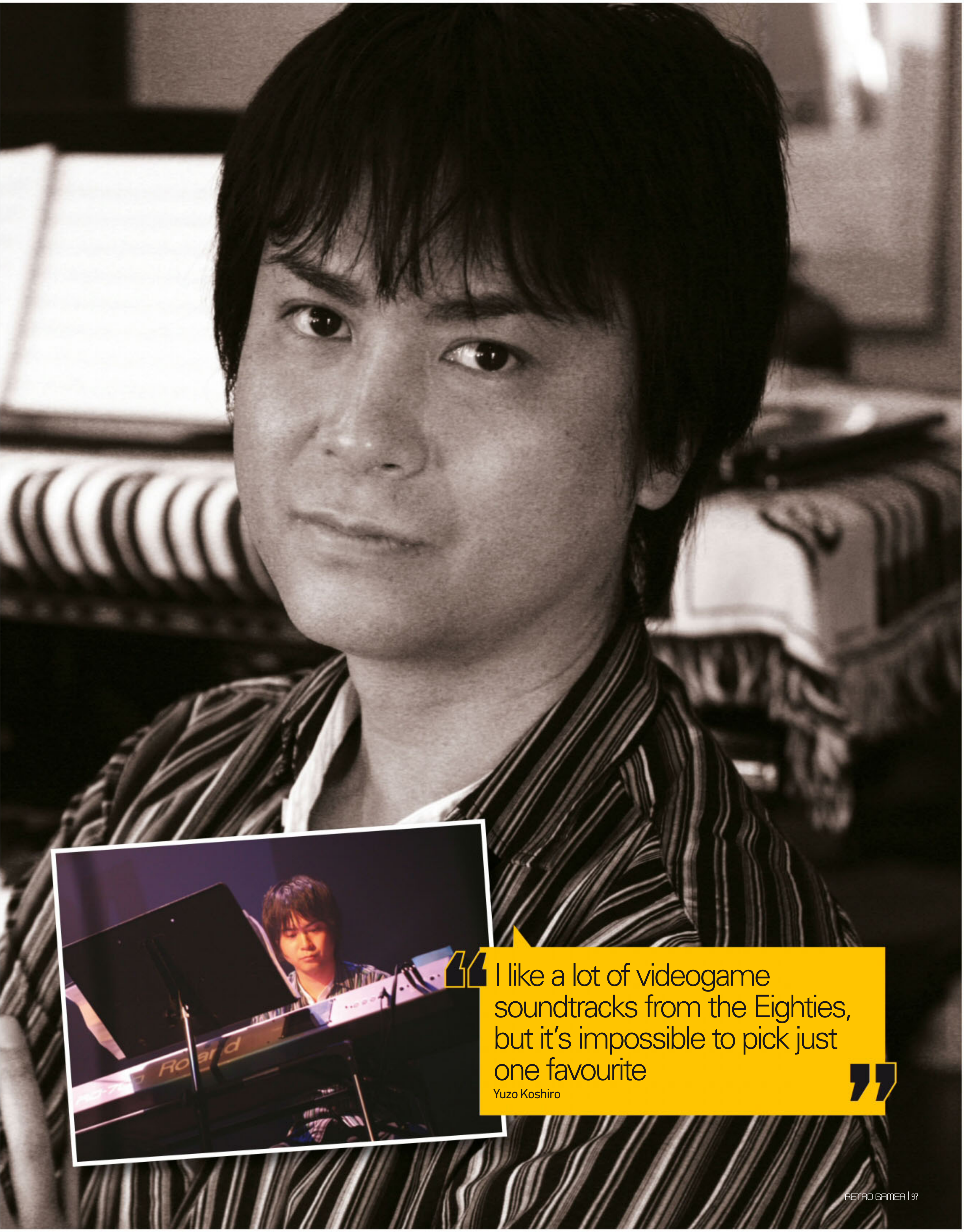


This mixture of musical and computing skills qu ckly brought Koshiro to the attention of one of the more prominent developers of Japanese computer games, thanks to a demo tape. "When I was 19, I was tasked with composing the soundtrack for *Xanadu Scenario II* by Nihon Falcom. That's how I got into the business," he recalls. Koshiro worked closely with Falcom during the early part of his career, contributing music to other games such as *Romancia*, *Sorcerian* and *Ys*. These RPG scores would go on to have a major impact on the genre, and Koshiro soon found himself able to purchase his own PC-8801 and go freelance. This would result in his first internationally recognised project, *The Revenge Of Shinobi* – a game which fused Japanese influences with popular electronic music.



» [PC-88] Yuzo Koshiro's early career was spent composing music on the PC-88 for games, such as *Ys*.

Working on the early Mega Drive hit opened many doors for Koshiro. The early Nineties was a fruitful time for him, as he worked on music for great 16-bit games including *ActRaiser*, *Super Adventure Island* and *Slap Fight MD*, as well as continuing to work on the *Shinobi* series through the portable offshoots on the Game Gear. However, Koshiro's most recognised



“I like a lot of videogame soundtracks from the Eighties, but it’s impossible to pick just one favourite”
Yuzo Koshiro

SELECTED TIMELINE

GAMES

- **XANADU SCENARIO II** [VARIOUS] 1986
- **YS: ANCIENT YS VANISHED** [VARIOUS] 1987
- **SORCERIAN** [VARIOUS] 1987
- **YS II: ANCIENT YS VANISHED – THE FINAL CHAPTER** [VARIOUS] 1988
- **THE REVENGE OF SHINOBI** [MEGA DRIVE] 1989
- **ACTRAISER** [SNES] 1990
- **STREETS OF RAGE** [MEGA DRIVE] 1991
- **SONIC THE HEDGEHOG** [MASTER SYSTEM/GAME GEAR] 1991
- **SUPER ADVENTURE ISLAND** [SNES] 1992
- **STREETS OF RAGE II** [MEGA DRIVE] 1992
- **STREETS OF RAGE 3** [MEGA DRIVE] 1994
- **THE STORY OF THOR** [MEGA DRIVE] 1994
- **THE STORY OF THOR 2** [SATURN] 1996
- **SHENMUE** [DREAMCAST] 1999
- **WANGAN MIDNIGHT MAXIMUM TUNE** [ARCADE] 2003
- **CASTLEVANIA: PORTRAIT OF RUIN** [DS] 2006
- **ETRIAN ODYSSEY** [DS] 2007
- **HALF-MINUTE HERO** [PSP] 2009
- **PROTECT ME KNIGHT** [XBOX 360] 2010
- **GOTTA PROTECTORS** [3DS] 2014

work of that era is on Sega's beat-'em-up series *Streets Of Rage*. The first game in the series was noted for its excellent soundtrack, which resulted from one of Koshiro's bigger gambles. He'd learned that the Mega Drive was taking off overseas, and in fact doing better than it was in Japan, so to better appeal to the console's audience he delivered a soundtrack which took inspiration from the dance music playing in clubs in America and Europe. Sega's consumer division management luckily accepted the style, and *Mean Machines* described the music as "some of the best Mega Drive tunes ever heard", an impression which hasn't been dulled with time.

The close relationship developed with Sega ultimately paid off in a wholly unexpected way, as it resulted in the creation of his own development studio. "Ancient was originally founded to develop the Game Gear version of *Sonic The Hedgehog*," he explains. Sega had plans to put its big new star on its 8-bit formats, but didn't have the resources to create a version in-house. Koshiro was approached to create the game, and Ancient was founded as a result. "Back then, my own mother was the president of the company. Ten years later, I took over that position," he continues. Indeed, it was very much a family business – Ayano Koshiro, Yuzo Koshiro's sister and a character designer noted for her work on games including *ActRaiser* and the early *Ys* games, also joined the company.

Sonic's 8-bit outing was both a critical and commercial success, but Ancient had bigger ambitions and Sega had higher profile work lined up. "As most of you probably know, Ancient developed the Mega Drive games *Streets of Rage II* and *The Story Of Thor*," Koshiro explains. The high-profile sequel was a big step up from the previous adaptation job, and Ancient knocked it out of the park. The game is recognised as being one of the best scrolling beat-'em-ups ever made, and along with contributor Motohiro Kawashima, Koshiro delivered another outstanding soundtrack.

As time went on, Koshiro's methods started to evolve. "I used the PC-8801SR for almost four years. After that, I bought a PC-9801, another personal computer by NEC. That's when I gradually started shifting towards the MIDI standard for composing music," he explains. This was late into the Mega Drive era, with the first PC-98 soundtrack being the infamously divisive *Streets Of Rage 3* soundtrack. Inspired by the unusual sounds of the emerging hard techno and trance scenes, he wrote a randomised sound generation program and built the tracks from the best results from that. The *Story Of Thor* was also composed on the PC-98, with a soundtrack that went back to Koshiro's action-RPG roots. The game was another Mega Drive classic, scoring 90% or above in *GamesMaster*, *Sega Power*, *Sega Pro* and *Mean Machines Sega*.

"I only relied on [the PC-9801] for about two years, I bought an Apple Macintosh IIci as soon as I could and went on to use software like Studio Vision and Logic for a while," continues Koshiro. This was during the late Nineties, when Koshiro's compositions were less frequently heard as work at Ancient became a priority. After completing *The Story Of Thor 2*, Koshiro's only notable work in the latter half of the decade was on Japan-only strategy game *Culdcept* and a contribution to Sega's epic *Shenmue*. In 2001, he became the president of Ancient.

"From the year 2000 onwards, I shifted to Windows PCs. Since then, I have been using Steinberg Cubase for my compositions," says Koshiro. Indeed, after a couple of years in his new role at the head of the company, Koshiro began to ramp up his musical output once again. Over the last 15 years he has been involved in games ranging from the well-known (*Castlevania: Portrait Of Ruin*, *Super Smash Bros Brawl*) to the obscure (*Cosmic Cavern 3671*, *Criminal Girls*) and everything in between. But what are Koshiro's own

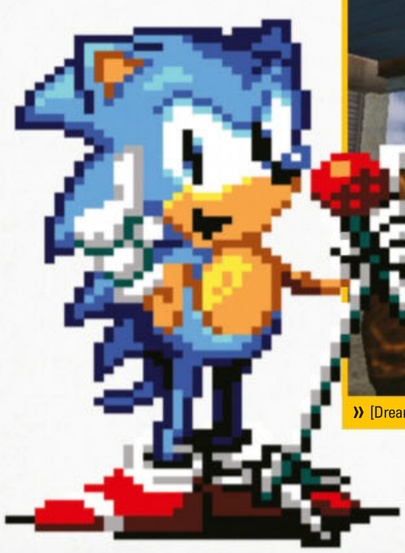




» [Mega Drive] *Streets Of Rage II* remains one of Ancient's most recognisable works.



» [Amiga] You can reserve a copy of *Turrican – Orchestral Selections*, featuring work from Yuzo Koshiro, from bit.ly/turricanorchestralsessions.





» [Dreamcast] Sega contracted a lot of external talent for *Shenmue*, leading to Yuzo Koshiro's soundtrack contribution.

> "I would like to develop a traditional RPG, just like the ones from the good old times"
> Yuzo Koshiro

KILLER CUTS

If you're unfamiliar with the work of Yuzo Koshiro, take a listen to these five tracks which show off his diversity and skill as a composer



PALACE OF DESTRUCTION
(*YS: ANCIENT YS VANISHED*, PC-88)

■ This track conveys the danger that the player is in when entering the game's first dungeon, but keeps an upbeat rock feel that stops the atmosphere from becoming oppressive. This piece of music will make you feel like the hero you're meant to be.



FILLMORE
(*ACTRAISER*, SNES)

■ The power of the SNES allowed Yuzo Koshiro to indulge his love for classical sound here, as orchestral samples are used heavily to create an epic accompaniment to the opening moments of your adventure in *ActRaiser*. It's one of the best opening stage themes in any game ever.



UNDER LOGIC
(*STREETS OF RAGE II*, MEGA DRIVE)

■ This track plays when you hit the baseball stadium stage, and it's easy to see the influence of dance music here – the melody could have been heard at any rave in the Nineties without anyone batting an eyelid. A stunning example of what can be done with the Mega Drive's sound hardware.



THE SADNESS I CARRY ON MY SHOULDERS
(SHENMUE, DREAMCAST)

■ This is an arrangement of the game's main theme rather than a composition of Koshiro's own, but it's a strong example of his range – it's a track which plays as Ryo Hazuki loses his job due to the violence that follows him in his quest for revenge.



LIGHTNING DANCE
(WANGAN MIDNIGHT MAXIMUM TUNE 5, ARCADE)

■ If you wanted more of Yuzo Koshiro's dance music but didn't know where to find it, a lot can be found in this arcade racing series. This track fits with the series' general trance theme, which sets it apart from the Eurobeat of the competing *Initial D* series of arcade racers.

favourites? "*Etrian Odyssey* and *Wangan Midnight Maximum Tune* are two series that have been around for more than ten years now. I'm really fond of the music I wrote for them," he tells us.

Of course, he hasn't taken his eye off the ball with Ancient. "The company is still in business and is currently developing software for Nintendo 3DS and Nintendo Switch," he explains. The company kept going through an era of ever-increasing team sizes and development costs based on a steady stream of contract work, often on anime tie-ins such as *Reborn!* and *Bleach*. Now, Ancient is enjoying a renewed ability to create its own properties. "The fact that indie games have become such a viable development model is great news for small studios like Ancient," Koshiro enthusiastically tells us. *Protect Me Knight* was one of the most notable games to come from the Xbox Live indie games scheme, and this has quietly developed into its own series. "*Gotta Protectors*, a 3DS game that was released in 2016, had some very good reviews," Koshiro informs us.

Koshiro remains in demand today, working on all manner of new projects. One of the most recent has been his work on remixing Chris Huelsbeck's *Turrican II* soundtrack, which is a surprising international partnership. It's also one which shows that even as a veteran of the industry, Koshiro is still exploring the world of videogame music. "I love Chris's music! The C64 and Amiga actually weren't popular in Japan, so I never got to play games like *Turrican* back in the day," he explains. "But when I did some arrangements of his music a while ago, I got to listen to a lot of his work. All of it was just fantastic." In particular, there's a respect for the shared skillset, as Koshiro explains: "He knows a lot about sound programming, so I could feel a lot of similarities to my own work from way back when."

Of course, when he's not running the studio and creating his own compositions, Koshiro likes to enjoy listening to music. "I like all kinds of genres, but lately I've been listening to a lot of 'New music', an exclusively Japanese music genre that I really love," he explains, referring to the work of artists such as Yumi Matsutoya. However, fans of Koshiro's club-inspired music might be surprised by his most favoured genre. "The one genre that I've listened to the most in my life is definitely classical music," he reveals. "I have a great passion for pieces that are played by a grand orchestra, especially the music of Brahms, Bruckner and Mahler. But I also adore the chamber music of Bach and Mozart."

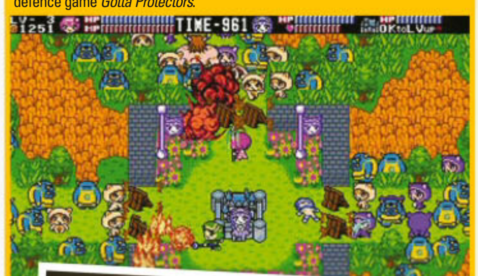
So what's next for Yuzo Koshiro? "I'm working on a lot of different games, but I'm afraid I can't tell you the exact titles," he says. But we can't help wonder if he's been bitten by the nostalgia bug, as when we ask him if there's anything he'd particularly *like* to be working on, he tells us, "I would like to develop a traditional RPG, just like the ones from the good old times" – and with the likes of *Ys* and *The Story Of Thor* in Koshiro's back catalogue, we can't wait to see Ancient take on that challenge. ✱

Many thanks to Thomas Böecker for his help. If you want to learn more about Yuzo Koshiro's contribution to *Turrican – Orchestral Selections*, head to bit.ly/turricanorchestralsessions.



» [Master System] When Sega needed an 8-bit version of *Sonic The Hedgehog*, it turned to Yuzo Koshiro.

» [3DS] Ancient still develops its own indie games, including the tower defence game *Gotta Protectors*.





Bubble Bobble

BITTEN BY THE GREEN-EYED MONSTER



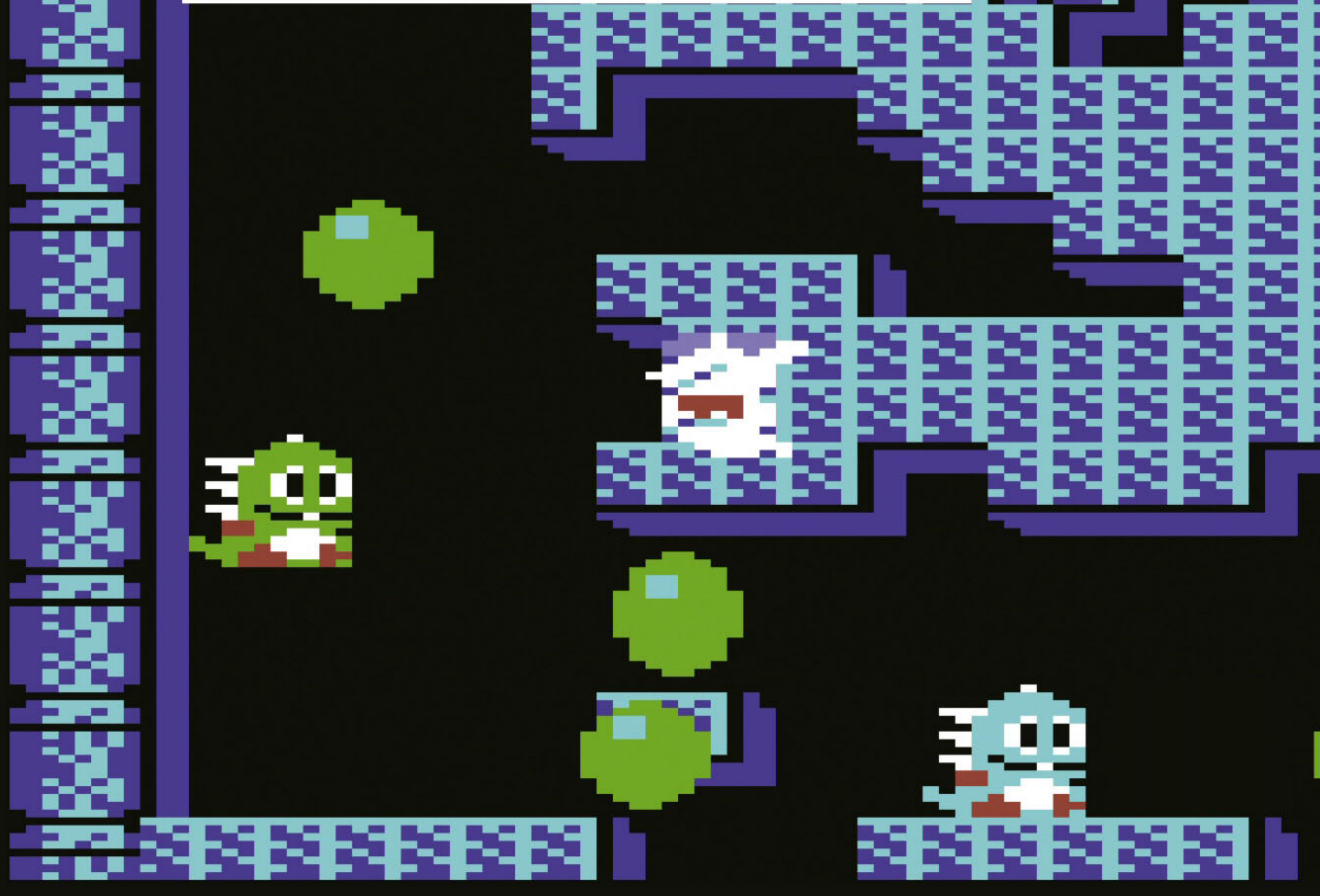
» COMMODORE 64 » FIREBIRD » 1987

I'll never forget my first encounter with *Bubble Bobble* on the Commodore 64. I was 14 years old and had gone around to Luke Palmer's house after school to play on his C64 with a few other mates. We'd been playing *IK+* and after losing several matches, an annoyed Luke suggested we played *Bubble Bobble* as it was "awesome" on the C64 and "was just like playing the arcade game".

What Luke didn't realise was that I also had a copy of *Bubble Bobble* on the Amstrad CPC, and I had played it a lot in the arcades as well. I was confident that I'd be more than able to hold my own and nodded at his choice and waited patiently for the game to load. Once it had finally loaded up and we started playing, I found myself getting increasingly pissed off with his choice of game. It wasn't because Luke was incredible at the game, it was because I couldn't get over how ridiculously poor it made my Amstrad version look.

For starters, it sounded absolutely incredible with a stellar rendition of the arcade tune that I'd memorised to heart after hearing it so many times in the arcades. It wasn't just the excellent sound, though – it looked superb and appeared as good as the original arcade game to my 14-year-old eyes. Of course, it certainly wasn't anywhere near as arcade perfect as I was thinking, but there was no denying that Ste Ruddy and Andrew Threlfall had created an outstanding replication that still holds up brilliantly today. It also seemed to play just like the arcade game and I can only imagine how many times the pair played the game while creating it to ensure it was as close as possible to Taito's original arcade hit.

I loved my Amstrad CPC, I really did, but playing *Bubble Bobble* was one of the first times where I found myself doubting about the choice of computer I had ended up with. 'Why did my Nan buy me an Amstrad when she could have bought me a C64,' I found myself thinking at the time. Still, at least I had amazing versions of *Contra* and *Renegade*. *




1UP
35380
2UP
63620
TOP
63620
CREDITS
8



» This month we play the sequel to Wolfenstein: The New Order, go for a spin in Gran Turismo Sport and hold Nick tightly while he endures Sonic Forces



» [Xbox One] Some of the bosses are spectacular, but they also feature some of the worst difficulty spikes.

Wolfenstein II: The New Colossus

SO MANY NAZIS... SO LITTLE TIME

INFORMATION

- **FEATURED SYSTEM:** XBOX ONE
- **ALSO AVAILABLE ON:** PC, PS4
- **RELEASED:** OUT NOW
- **PRICE:** £59.99
- **PUBLISHER:** BETHESDA
- **DEVELOPER:** MACHINEGAMES
- **PLAYERS:** 1



***Wolfenstein: The New Order* turned out to be something of a surprise hit in 2014, proving that the aging franchise still had plenty of life in it and cementing MachineGames as a company to watch.** After giving us a standalone prequel in the form of *The Old Blood* in 2015, the Swedish developer is back with a brand-new *Wolfenstein* sequel and it's arguably one of the most fun shooters we've played for ages.

That's not to say that *The New Colossus* is easy going, though. It can be a tough game to get through at times and when you're not stabbing Nazis in the neck with knives or blowing an opponent's limbs off with a shotgun you're dealing with numerous tough themes, including racism, domestic abuse and mortality. Considering its general gung-ho attitude to killing, *The New Colossus* is surprisingly deep at times and MachineGames should be commended for continuing to flesh out the character of William 'BJ' Blazkowicz.

Set roughly six months after the events of *The New Order*, you start playing as a broken, wheelchair-bound Blazkowicz whose body is pushed to breaking point and is obsessed with the safety of his partner Anya, who is heavily pregnant. It's certainly not *War And Peace*, but the story is surprisingly nuanced for a first-person shooter and it highlights how adept MachineGames has become at weaving narration and game mechanics together. Put it this way, if Valve ever decide to outsource *Half-Life 3* we'd love to see MachineGames take a stab at it.

As solid as *The New Colossus*' story is, it's the actual gunplay that is the beating bloody heart of MachineGames' latest release and it doesn't disappoint. The armoury that Blazkowicz slowly gains access

» [Xbox One] There's a version of *Wolfenstein 3D* on the German submarine you capture and it has a few surprises.





BRIEF HISTORY

» *Wolfenstein 3D* was released in 1992 by id Software and was inspired by Muse Software's *Castle Wolfenstein*. It helped establish the first-person shooter and was followed by numerous sequels. The franchise was rebooted in 2015 by MachineGames and received an standalone expansion, *Wolfenstein: The Old Blood*, the following year which acted as a prequel.

✱ PICKS OF THE MONTH



DARRAN
Wolfenstein II: The New Colossus
MachineGames has created a worthy sequel that's only really let down by some harsh difficulty spikes.



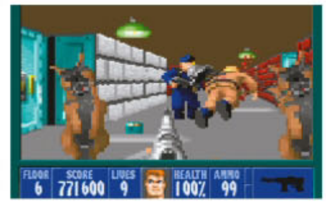
NICK
Spelunker Party
This might be a bit basic, but it's certainly a lot more fun than a certain other platformer that I played this month.



» [Xbox One] *The New Colossus*' score attack mode will constantly drag you back for one more go.

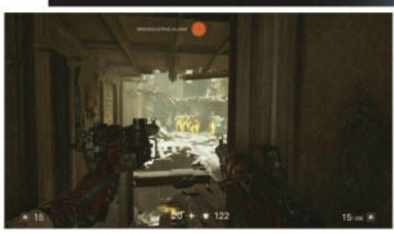
✱ WHY NOT TRY

▼ SOMETHING OLD
WOLFENSTEIN 3D (GBA)



▼ SOMETHING NEW
WOLFENSTEIN: THE NEW ORDER (PC)





» [Xbox One] Like *The New Order*, duel-wielding weapons is a major focus of *The New Colossus*.

to isn't among the genre's biggest, but it's certainly one of the messiest, allowing him to dismember and even disintegrate his foes in spectacular fashion. As with the shooters of id Software, all the guns, from the simple pistol to the various super weapons, feel incredibly satisfying to use, causing your enemies to lurch about in spectacular fashion as you fill them with hot lead and plasma. The vast majority of weapons can be dual-wielded as well, upping the kill factor immensely, but balancing things out by being slightly more difficult to control. The many enemies you face soak up a large number of bullets – particularly on the more brutal difficulty levels – meaning you'll need to make use of all the spare ammo you find as you battle your way through the surprisingly lengthy campaign mode.

Ammo isn't the only thing you'll be scavenging for in *The New Colossus*. MachineGames have hidden an insane amount of objects around the game world, encouraging you to stray outside the relatively linear pathways in order to discover various trinkets, from records to playing cards. They all unlock a wealth of goodies outside of the main game, considerably lengthening the game's already substantial campaign mode if you're the sort of person who has to discover absolutely everything. They have a second purpose too, as collecting them allows you to eavesdrop on the many enemies that inhabit the game world. MachineGames has done a strong job of humanising even the commonest foot soldier, highlighting how easy it can be to walk down the wrong path and ultimately choose a life of evil.

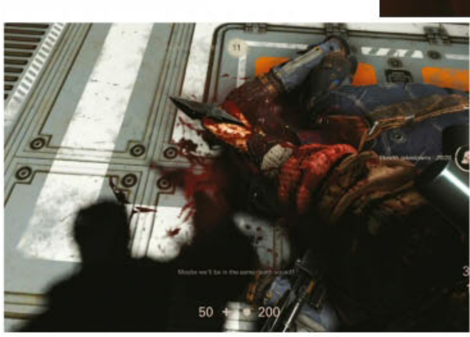
And while we're on the subject of paths, MachineGames has once again presented various ways in which you can tackle each stage. As with *The New Order,* it's possible to use stealth to get through large sections of the game, although it's considerably more difficult this time around. At some points it's obvious that you're being deliberately funnelled into an unavoidable confrontation, which will frustrate those who prefer their shenanigans to be sneaky. The game opens up in other ways, mainly because of the various abilities that Blazkowicz acquires. Initially he can use a powerful jump stomp to smash through grates, but a key turning point of the game sees him gaining one of three abilities, including telescopic legs, which further expand the ways you can approach each stage. As a result each level of *The New Colossus* becomes one worth exploring as certain platforms are suddenly reachable or an additional suit upgrade may allow you to break through drywall to discover a new secret room or tackle an enemy in a brand-new inventive way. Further upgrades come in the form of perks, which Blazkowicz acquires after completing a set amount of objectives (which typically revolve around defeating enemies in numerous brutal ways). *The New Colossus* may be a game about killing fascists, but it's also one where you can experiment and the later stages push that forward in a number of inventive ways. Even the stolen sub that Blazkowicz and his likeable team find themselves on is a joy to explore, filled with new nooks and crannies that beg to be investigated.

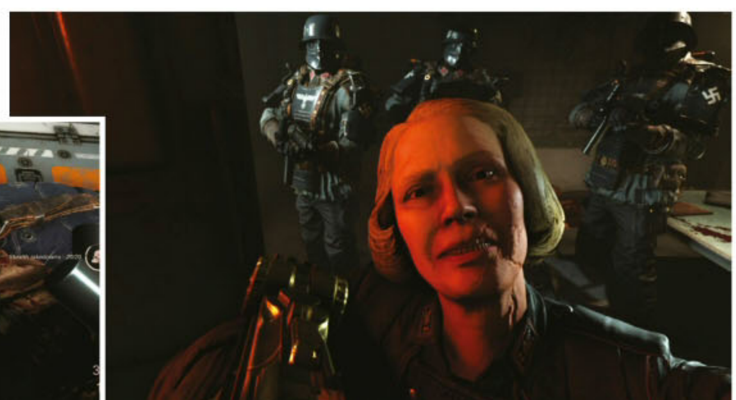
As with *The New Order*, there's no multiplayer mode in *The New Colossus*, and as with *The New Order*, it doesn't really hurt the game from a value for money viewpoint. There are a good number of additional side quests to complete as the game continues; Enigma Codes (which you pick up from officers) can be decrypted, as well as score attack modes and assassination hunts. *The New Colossus* may lack multiplayer but there's still plenty to do in it. It's not going to change the world, but it's highly satisfying to play, and ultimately, that's all that matters. ✱

In a nutshell

It does suffer from some annoying difficulty spikes, but that doesn't stop *The New Colossus* from being an action-packed adventure with a story that matches its spectacular set-pieces and graphic violence.

» Score **82%**





» [Xbox One] Frau Irene Engel is the main villain of *The New Colossus* and is chillingly brutal at times.

★ PICK OF THE MONTH

Raiden V: Director's Cut

» **System:** PS4 (tested) PC » **Buy it from:** Online, retail » **Buy it for:** £34.95

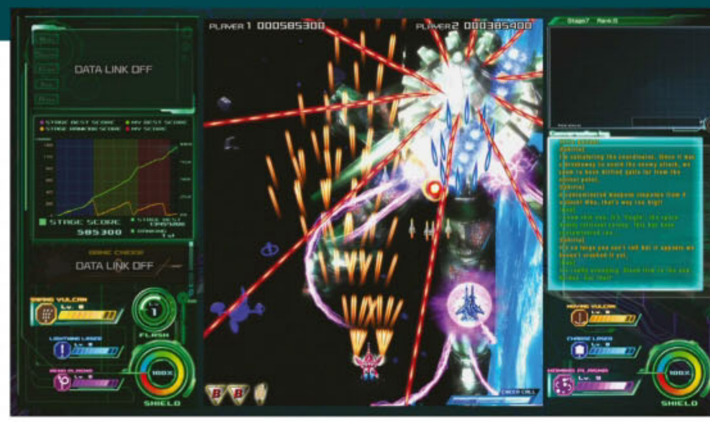
Shoot-'em-ups aren't known for their in-depth stories, so finding such a prominent one in *Raiden V* is something of a surprise. It's actually pretty decent, too, telling the tale of an invasion of Earth by an alien race known as the Cranassians and how the World Alliance Military fights back using the ultra-powered Raiden attack fighter. It's a story you've heard many times before but it does add some much needed texture to the onscreen shooting and we'd love to see it implemented in future games within the genre.

Raiden V's new story isn't the only addition to this new director's cut. It now supports two-player local co-op play, adds a couple of new missions that weren't in the original game, introduces a brand-new story mode that features multiple endings and adds branching levels, new ships and boss missions. The core mechanics are exactly the same as the original Xbox One release, meaning you can select different loadouts for your ship at the beginning of the game and that your scoring is still based around shooting enemies as quickly as possible and in quick succession. The 'Cheer System' also returns which allows you to cheer other players online as they reach certain targets (although it will slowly build up over time as well). When your meter is fully charged it cancels all enemy bullets and greatly boosts your firepower for a specific amount of time. It's an interesting system, but does take a little while to wrap your head around and can be hard to follow on the later stages, as the action gets so hectic.

Boss encounters are varied and satisfying, and many of them transform into tougher forms as they take more damage. While some of them are insanely tough to take down, none feel unfair (although some of the more challenging alternatives in Boss Mission mode will have you swearing like a trooper). You'll certainly be glad of the shield your ship has (although some will no doubt bemoan the lack of traditional lives).

Raiden V: Director's Cut takes an enjoyable shooter and vastly improves it, making it the definitive version of an already-great blaster.

» **Score 87%**



» [PS4] The bosses of *Raiden V* put up a stiff fight and often have different transformations.



» [PS4] The famous 'toothpaste' laser returns and is better than ever.



Doom

» **System:** Switch » **Buy it from:** Online, Retail
» **Buy it for:** £49.99

It's hard to justify *Doom*'s asking price when the Xbox One and PS4 versions currently retail for £10 each. Having said that, this is a pretty impressive port that retains all the levels and multiplayer components of the original game and leaves nothing out. That does come at the expense of a stable frame-rate, though, particularly when playing the game docked. Play it on the higher difficulty levels when more enemies enter the fray and the Switch struggles. It's far less noticeable on easier settings, sure, and when played in handheld mode and it retains all the fun of the original, allowing you to smash and dismember demons to your heart's content. It's quite simply the best portable first-person shooter available; it's just a little on the pricy side.

» **Score 70%**



Gran Turismo Sport

» **System:** PS4 » **Buy it for:** £59.99
» **Buy it from:** Online, retail

Playing Polyphony's latest racer is a somewhat disappointing experience. Its presentation is as slick as ever and the cars have been amazingly replicated with all the care and attention of past games in the series, but it's not really enough. While the company has made huge strides in creating an entertaining online mode, it's come at the expense of the campaign, which are now largely mission-based and are designed to make you understand every aspect of the car you're driving. It's an interesting development, but it feels lacking in content, and has a distinct *Prologue* feel to it. It's further amplified by the small selection of tracks and cars that are on offer. What *Gran Turismo Sport* does it does very well, for many that won't be enough.

» **Score 68%**



Sonic Forces

» **System:** Switch (Tested), PS4, Xbox One, PC
» **Buy it for:** £34.99 » **Buy it from:** Online

Eggman and his new creation Infinite have taken over the world, imprisoned Sonic and left his friends to form a resistance. To emphasise the feeling of everyone pulling together, you must create your own custom character to join the crew – a dream for DeviantArt account holders everywhere. *Sonic Forces* reprises the 2D/3D game design of *Sonic Generations* and Mega Drive-era Sonic even returns, but it's far less interesting than that previous effort. The game's 30 main stages are short and offer little challenge – this might be because you're going at top speed constantly, to mask the fact that the controls are dreadful for finer platforming tasks. All the effort here has, sadly, gone into presentation over game design.

» **Score 48%**

» [Windows] *Operation YABUKA* offers a new perspective on *Operation Wolf* clones.



» [Windows] Dashing around and avoiding the spikes in *Br8k0ut*.





» [Windows] *Dark Magellan* reminded us a bit of Nintendo's *Solar Striker*.

HANDHELD HEAVEN

We've covered the Game Boy Jam in the past, but for one reason or another it didn't happen this year. So instead an unofficial version was organised by Jamie Degen which led to 38 new games materialising for the handheld. As with previous iterations of the competition, the rules are kept simple with the challenge being to produce a game for current hardware that sticks to the graphical restrictions of Nintendo's LCD-based console.

The Game Boy has a lot of platformers in its arsenal so we weren't surprised that there are quite a few to choose from here; some are promising but short, such as *Owyn's Adventure* or *Fully Charged*, while one of the more substantial titles is *Br8k0ut*, which is unusual in that the protagonist can't jump and must instead rely on a dash function to traverse hazards. Each level is a single screen and getting killed will reset the player to the start, but there isn't a lives counter or timer to worry about.

There are also a couple of visual novels – the most impressive looking one being *Justice Bear: UnderLine* but there's very little actual story included right now – and a few shoot-'em-ups, too, such as *Dark Magellan*, but the game that really caught our attention is *Operation YABUKA*, an *Operation Wolf*-style blaster which sports a top-down graphical style and multi-directional scrolling. It's still in alpha and, while the first level was nearing completion at the time of writing, the rest of the game is still very much a hard hat area.

As always, these competitions offer up a selection of games which cover a range of genres, so most players should find something of interest to them in there. The competition website where everything can be downloaded can be found behind Kikstart.eu/unofficial-gbjam-2017 and hopefully the developers behind some of the incomplete titles will find time to expand on what they've already created.

On a different note, we thought that some of our readers who fancy the idea of developing their own games might be interested in the series of programming tutorials for 7800basic, a version of the venerable BASIC programming language for, possibly unsurprisingly, the Atari 7800. The course was written with beginners in mind and posted to the Atari Age forums – Kikstart.eu/7800basic-tutorial goes to the post containing an index and there's also a list of useful tools for game development within that thread.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **darran.jones@futurenet.com**



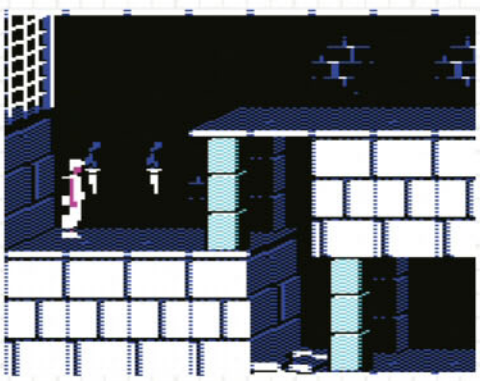
» [Mega Drive] Perhaps using the shower would be a better idea?

IS ANYBODY HOME?

It's still very much a work in progress, but a Mega Drive demake of *Resident Evil* has appeared. The player can slide around the isometric 3D environment – the walking animation isn't implemented – while collecting, examining or interacting with items but, although there are creatures to see, they currently just stand there looking more gormless than terrifying.

Hopefully we'll be trying to survive the results of a T-virus outbreak soon, but in the meantime a preview is lurking ominously behind Kikstart.eu/resi-evil-md for those who feel brave enough to go looking.

"Hopefully we'll be trying to survive the results of a T-virus outbreak soon"



» [BBC Master] A rather familiar-looking opening screen.

HELLO, YOUR MAJESTY

Jordan Mechner's classic action adventure *Prince Of Persia* is in the process of being ported to the BBC Master and the most recent preview at the time of writing is a complete implementation of the first level including enemies and even secret areas.

There is still quite a way to go at the moment and the graphics have some flickering issues which are hopefully being attended to for its final release, but Kikstart.eu/pop-bbc jumps across a chasm to the Stardot forum thread with the most recent previews appearing later on in the discussion.

HOMEBREW HEROES

Planet Golf is an unusual game about gravity and putting skills, so we sat down at the 19th hole for a chat with developer Antonio Savona to find out about the inspirations behind it



THE BIG INTERVIEW Antonio Savona

Where on Earth did the idea for golf on other worlds come from?
Initially, I just wanted to implement a ballistic model on the C64, as a personal challenge. Once I had it working, I was playing with this bouncing ball, modifying gravity and attrition just for fun, and thought of making a game out of that. The idea of setting it on other planets came straight away – where else would you deal with different gravity conditions? Finally, I thought about golf because that is the easiest game you can develop with these premises. If I had been less lazy, we could be playing *Planet Soccer* now.

I guess being a fan of space also played a role: the whole game is a tribute to astronaut Alan Shepard, who actually played golf on the moon.

How long did the game take to develop?
One year of my spare time, more or less. I did coding SFX/speech and some of the graphics. Aldo Chiummo and Gaetano Chiummo composed the music. Ilkka Sjösted and Massimiliano De Ruvo did the rest of the graphics.

Finally, the one and only Oliver Frey created the cover for the game: one of my childhood dreams come true.



» The cover art and contents of the Ultimate Edition.

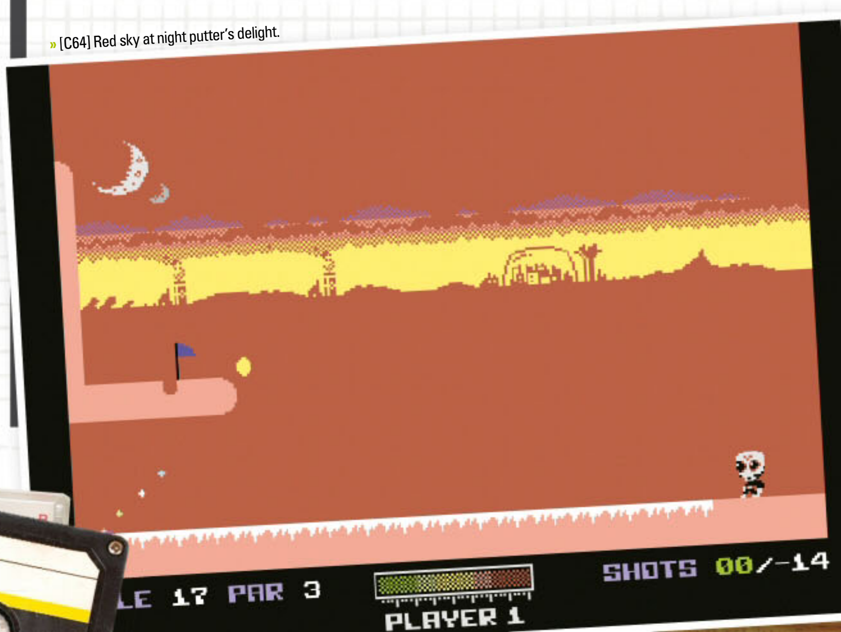
What would you say was the hardest part of *Planet Golf* to code?
The physics, I guess. Implementing it in the first place was not really that difficult, but once I started building the game around it I realized that my approach was too slow and I had to sweat a lot to redesign the model to have it run smoothly, along with animations, digitized speech, game logic and everything else. And because of the fast forward feature, physics must be able to run at three times speed.

Looking at it now is there anything you would have done differently?
I'm quite pleased with the result. Of course I wish I could have added, say, more courses or more full-motion video besides the few short sequences in the extras – but the moment comes when you have to draw the line and think about shipping the game.

What sort of feedback have you received?
Extremely positive, all the reviews are ravishing so far. There are also people organizing tournaments around the world and I get reports of incredible scores. One specific player who had initially reached out to me in anger and with a memorable comment – "Who designed the levels, Lucifer?" – now constantly beats me on all the planets. I am being humiliated at my own game, and it's a great feeling.

And finally, can you tell our readers what you're planning to do next?
We will release an expansion, which, of course, will be called: *World Class Planet Golf*. But right now I've reprised a project that I had frozen before *Planet Golf* – Guy in a Vest. It's a run-and-gun game set in the universe of the action movies of the Eighties. In other words… "I'll be back!"

» [C64] Red sky at night putter's delight.



DO YOU REMEMBER?

Some games don't need complicated plots about saving the universe and Jeff Minter's *Made In France* is one of those games. The player has to guide a light beam to the glowing 'blob' on the screen but, instead of taking direct control, must instead deflect it with angled mirrors. Once a blob is dealt with another appears and the game continues until the time limit runs out.

The keys N and M drop mirrors and they're only removed by the blast from a zapped blob, so keeping mirror use to a minimum is important because otherwise the playfield becomes cluttered. C64 gamers who own *Iridis Alpha* already have this game since it's included as the pause mode, but a standalone version was released as well. Kikstart.eu/mif-c64 takes you to the game.



» [C64] Nearly time for the pulsing blob to meet the light beam.



» [C64] A splash of colour, clearing away some of the reflectors.





» [C64] Why do golfers wear two spacesuits? In case they get a hole in one.

PLANET GOLF

» **FORMAT:** COMMODORE 64 » **DEVELOPER:** ANTONIO SAVONA » **DOWNLOAD:** KIKSTART.EU/PLANET-GOLF-C64 » **PRICE:** FROM $3.99

Astronaut Alan Shepard stood on the moon near the beginning of 1971 and, while working around the restrictions of his spacesuit, used a specially modified golf club to hit a couple of balls, sending them flying for miles and miles, thanks to the lunar gravity. After that event it took over 30,000 years for mankind to colonise our solar system but, with the arrival of package holidays came the option of playing golf on distant planets.

The essence of the game itself seems to have become confused with crazy golf over the millennia, however. Since obstacles now go way beyond mere bunkers or rough patches of ground, to the point where losing a shot as the ball is flung out of bounds by a conveyor belt or booted away by a disgruntled, but still cute Martian, are as commonplace an event as accidentally splashing down in a water hazard.

The player can select the planet they wish to play a round on, with three being available initially and a further two unlocking as various achievements are completed. Each hole is a single screen in size which is viewed sideways-on, and the player must decide on an angle for their shot before holding down the fire button to choose how much force to apply, taking the planet's gravity and other environmental factors such as the friction of the ground into consideration.

There are sampled sound clips which add to the atmosphere and the game offers some handy tips which occasionally pop up before a hole starts to help the player along, but there's no tutorial mode apart from the early holes of each stage. Skills are instead picked up during play, and *Planet Golf* can't be mastered overnight any more than golf itself can. So becoming skilful enough to play a decent, low-scoring round will take time and practice. But during that process it's also fun to spend a session just whacking the ball around to admire the scenery while finding out what effect the gravity and hazards have.

» **Score 92%**



» [C64] That's a good question, who put a conveyor belt on this hole?



» [C64] What goes up must fight heavier laws of gravity on Jupiter.



ZUKINOX

» **FORMAT:** SINCLAIR SPECTRUM » **PRICE:** FREE
» **DEVELOPER:** JAIME GRILO
» **DOWNLOAD:** KIKSTART.EU/ZUKINOX-SPEC

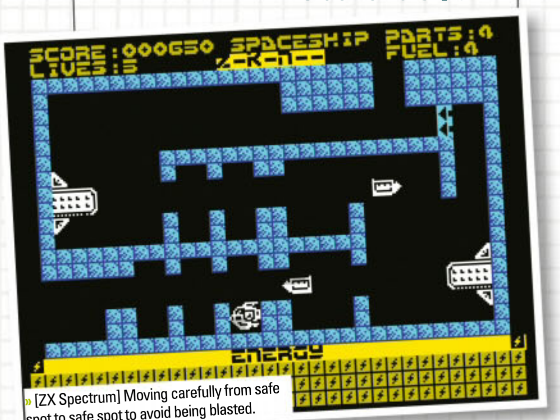


» [ZX Spectrum] Some fuel collected, so time to head to the the start.

The starship Zukinox has been torn to pieces which have then been scattered around a system of caves deep within the planet Lavolatum. The player has control of a small shuttle craft, which can be used to search for the seven parts of the ship along with ten fuel cells which will be required if it's going to take off, but the locals aren't keen on interlopers so will either need to be avoided or in some cases blasted.

The constant backtracking while ferrying ship parts and fuel cells to the launch pad – only one of each can be carried at a time – feels like a slightly clunky attempt to extend the challenge and becomes annoying quickly, especially since some hazards like the projectiles fired from wall-mounted launchers require quite precise manoeuvring to avoid. If you like tough games then give it a try, but it's frustratingly hard even with nine lives.

» Score **63%**



» [ZX Spectrum] Moving carefully from safe spot to safe spot to avoid being blasted.

KILLER BEES

» **FORMAT:** COMMODORE AMIGA » **DEVELOPER:** GARY JAMES
» **DOWNLOAD:** KIKSTART.EU/KILLER-BEES-AMIGA » **PRICE:** FREE

A lot of game scenarios start with the world being attacked, but this has to be the first time a swarm of bees have collectively been the protagonist. The objective is to guide this swarm around the playfield, stinging the invading Beelings until they're nothing more than a gravestone.

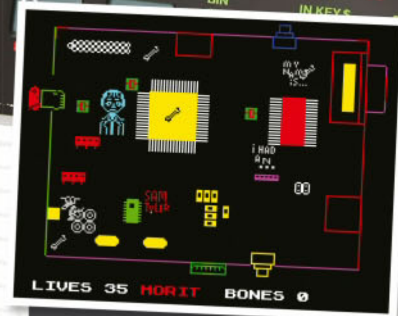
These enemies are defenceless, but have brought their own clusters of guardian bees which will destroy the player's swarm one drone at a time. These can be dealt with by a blast from the Sting Ray, a weapon which is charged each time a Beeling is taken down.

Killer Bees was originally released in 1983 for the Philips G7000 and this conversion isn't pushing the Amiga even slightly on the graphics front, but, while the gameplay is similarly primitive, it's still the kind of no nonsense action game which can be picked up for a quick blast.

» Score **76%**

» [Amiga] Trying to keep up with the Beelings without running into an enemy swarm.





ROUNDUP

Variations of the classic *Snake* formula seem to have been popular over the last couple of months and *Full Screen Snake* for the C64 is another example, although there's a twist: the action extends out of the regular screen and into all four borders. It doesn't offer anything extra on top of that but is still fun for the occasional quick game. Slither to Kikstart.eu/fs-snake-c64.

Subtitled 'The Dog That Caught The Car', *Moritz* is a platformer for the Spectrum where the titular, bone loving canine must put himself in harm's way while searching for sustenance. But the uncomplicated gameplay on offer doesn't equate to it being easy, so being handed 42 lives to play with isn't as generous as it might sound. Kikstart.eu/moritz-spec is where to look for a download, if you're interested.

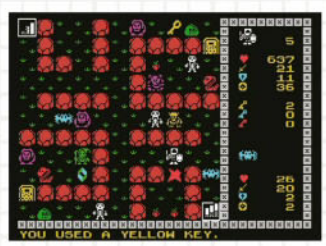
MAGICAL TOWER ADVENTURE

» **FORMAT:** MSX » **DEVELOPER:** TIMMY » **DOWNLOAD:** KIKSTART.EU/MAGICAL-TOWER-MSX » **PRICE:** FREE

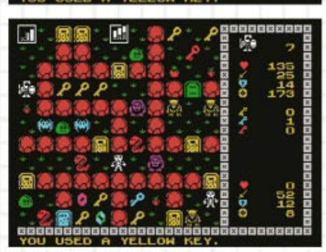
As fear-inspiring edifices go, the *Magical Tower* scores pretty well. The maze-like floors are supposedly jam-packed with enemies to fight or at least avoid and rumours abound of treasures to find and princesses to rescue, although this is presumably all speculation since nobody has ever returned alive. The latest hero to cross the threshold plans to defeat whatever lurks within, finding keys to open doors and slaying whatever gets in his way in the process.

Walking into a nasty initiates the turn-based combat won't stop until one side is deceased, but fights can be planned in advance. Pressing fire while walking pulls up statistics for all of the current floor's potential battles including an indication of how much damage the player will suffer. Sometimes it's better to go around something rather than through it, at least until our hero has time to build up his own stats.

» Score **80%**



» [MSX] If in doubt, try avoiding the nasties – it'll save health in the long run.



» [MSX] Time to head downwards for a couple of levels in search of keys.





MAILBAG

HAVE YOUR SAY... SEND US A LETTER OR MAKE YOURSELF HEARD ON THE ONLINE FORUM – **WWW.RETROGAMER.NET**

WIN!

Every month, one lucky writer-in will receive a spanking copy of either our NES/Master System or SNES/Mega Drive books



BEAT THE TEAM

MOON CRESTA



This month's challenge was inspired by Graeme Mason's Ultimate Guide, and has sent the team into deep despair – none of us have had an easy time of racking up points!

DARRAN 33,860

"I'd love to say that my phenomenal high score is down to skill and nothing else, but there's such an element of luck to the game that a claim like that would be completely unfair."

DREW 22,190

"This is the type of game a sadist will inflict on someone. 'Oh you like videogames do you? Well, try *this*!' they'll say with an evil cackle. And that's exactly what I did to the **Retro Gamer** team."

NICK 20,460

"It feels impossible to offer any useful advice for this game – even once you've learned the waves, the enemy movements are still erratic to the point of feeling random. So don't even try to think, 'feel' instead."

SAM 17,380

"I was determined not to come last in another score challenge... But I seem to have come last in another score challenge."





MAGNIFICENT KABINET

Hi **Retro Gamer**,

I have been working on this project for nearly a year, not sure if it would be something you would want in your mag, but it is retro gaming so I thought I would share this with the community.

These restored *Mortal Kombat II* arcade machines are like rocking horse poop – *very* rare, especially in the UK. I have taken photos at every stage, from getting the original designs to where it is today.

It has the original screen, a board from 1998, and there are also hard-to-find parts inside this amazing cabinet.

Thomas Coleman

This is a very cool project, Thomas – you've clearly put a lot of love into it and the machine looks great. We particularly admire the fact that you went so far as to construct a new wooden cabinet and included all of the correct details. Hopefully you'll have a lot of fun with it – even if you have to spend far too much time trying to beat the seemingly psychic CPU-controlled Johnny Cage, like we did at a holiday park back in the mid-Nineties.

FIERY PASSION

Hi **Retro Gamer**,

I have noticed that, as of late (around issues 170-173), there are a lot of mentions of the SRPG series *Fire Emblem*, a series beloved by many. This gladdened me as a fan of many games in the franchise, as there's a lot less coverage on this franchise than it deserves by the media, and so there's a request I would make of you.

Fire Emblem is a fairly prominent series worldwide these days, and the modern games are mentioned – and acclaimed – by many people today. However, I believe it would please the retro gaming world if they were aware of the earlier games in the franchise! Many of them are criminally underrated and tragically overlooked, with a strong fanbase but little to no media coverage. This is where you come in! It would pay us all dividends if you made a feature on the games, especially the ones that are Japan-only as these are the most ignored over here in the West, it would create a surge of interest in stellar titles

STAR LETTER

SNES SATISFACTION

Hi there,

Love the attention the Mini SNES has been getting and also reading the reactions it has been generating in your magazine. I want to say I am now the proud owner of the little Nintendo wonder and have been re-experiencing games I played back in the Nineties. I must admit, I forgot how good these games are, and why I stopped playing them and sold my SNES for a PlayStation I never will know... but that said, it has now taken a spot above my PS2/PS3 stack and will be there for the considerable future.

Also, I know a lot of readers out there will be having trouble finding the little machine in stores, but my advice would be keep looking (I found mine at my local Argos) and checking when stock will be available, it is worth it.

Keep up the good work,

Steve

We're glad you're enjoying the SNES Mini, Steve. It's easy to get caught up in what the machine does (or doesn't) do and the availability issues, and some have suggested that a console that is hard to get hold of doesn't deserve the coverage. However, reactions like yours confirm that it's absolutely right to pay attention to such releases – it's an exciting machine to have. We've certainly had a lot of fun with it in the office too, particularly during the *Super Ghouls 'N Ghosts* high score challenge.

Availability of the SNES Mini seems to have been far better than that of the NES Mini – we've not seen nearly the level of upset and frustration that surrounded the release of last year's machine. Hopefully, next summer's batch of NES Mini consoles will allow everyone who wants one to own one.



» We're pleased to see people are actually getting their hands on Nintendo's latest plug-and-play.

Don't forget to follow us online for all the latest retro updates

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Email: darran.jones@futurenet.com

such as "*Thracia 776*" and "*Genealogy Of The Holy War*".

The fandom feels like critics don't understand the franchise as the earlier, higher quality titles are neglected.

I hope you will consider this pledge, **Retro Gamer** team! (I'm sure the fanbase on serenesforest.net, including myself, could provide information for spotlights and such.)

Joseph Smith

Darran's subtle *Fire Emblem* name dropping seems to have worked! He's a big fan of the series and there's definitely no barrier to it appearing in the magazine – you can expect to see a history feature in the future, we just don't know when that will be at present. We did recently interview Intelligent Systems about *Fire Emblem: Echoes* in issue 168, so we'd encourage fans of the series to check that out in the meantime.

GOING DEEP

Hi **RG**,

As a kid I spent many hours playing a Spectrum game called *The Deep*. You played a battleship (I think) and had to release well-timed depth charges to destroy submarines and various other nasties lurking under the water.

I remember it fondly, yet I'm certain I never progressed beyond the first stage. Whether this was due to a bug that prevented me doing so, or my own lack of skill in meeting the right conditions, I'll probably never know. Any chance of a screenshot of the latter stages so I can see what I missed out on?!

Tim Fitches



» [ZX Spectrum] This is the fourth stage of *The Deep* for Tim Fitches. Do any other readers have requests?

We can see why you spent so much time playing this, it's an attractive shoot-'em-up with a novel design. We can also see why you struggled to get past the first stage, as it's very long – after a lengthy initial phase of fighting with depth charges, you engage in a moment of ship-to-ship combat. That's followed by a minigame in which you save friendly ships from incoming fire *Missile Command*-style, and then there's a bit more of the regular gameplay before you hit the end of the level.

We've got shots of the second and fourth levels for you here, Tim – hopefully these will satisfy your curiosity.

DISCUSSED THIS MONTH

Lego man

Darran wept this month, for there were no more consoles – that he deemed worthy – left to collect for. In light of this his attention pivoted to hoarding lego models. So far he's built everything from birds to Boba Fett's Slave-1 starship. He's currently eyeing up a £400 Death Star model.





From the forum

Every month, Retro Gamer asks a question on the forum and prints the best replies. This month we wanted to know…

Is Sonic 2 really a classic game?

The Laird
I still think it's the best scrolling platform game ever made and I don't even like the genre!

fredghostmaster
I've never understood why *Sonic 2* is so highly rated, I'd always choose the first *Sonic*, which I played to death and my kids love it even now.

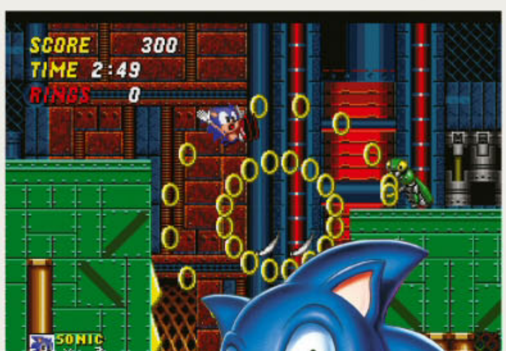
RetroBob
Perhaps it's fashionable to hate on *Sonic*, I think that's nonsense – to me, it still plays as well today as it did back in the day.

RetroMartin
Sonic 2 was a masterpiece. It had much larger level design than any *Mario* game before it and it was fast. The design was sound and still holds up today.

Mayhem
Nice game, way too easy…

merman
It's a good game, and has some good design. But for me it falls short of being one of the greatest, landing on a large spike and dropping all of the gold rings it was carrying.

Tom_Baker
It's utter tripe… and onions. Digitiser and GamesMaster told it as it was at the time. *Sonic CD* and *Sonic 3* just as bad. Stick with the original.



» [Mega Drive] Sonic's either really happy or really upset. We can't tell.



Nikolai
I never came to grips with *Sonic* back in the days. Mario was fun. *Sonic* just...wasn't. I loved the music though!

the_hawk
Why is this even a debate? There are two types of people in this world, those that love *Sonic 2* and those that are wrong!

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ENDGAME



POCKET FIGHTER: DAN'S ENDING

» You've got to feel for Street Fighter's Dan Hibiki. Sagat killed his dad, his peers consider him a joke, and now he's got to fight in this tournament where everyone suddenly has stubby limbs and huge heads. But maybe, just maybe, winning here could help him move on and finally get someone to take him seriously. So what's your reward for guiding him to victory? Let's find out…

01



» Having achieved his ambition of a tournament victory, Dan decides to open his own Saikyo-Ryu dojo in order to spread his martial art. What's more, he takes the promising young Ryu fangirl Sakura under his wing as his first student.

02



» Together, master and disciple train in the art of throwing short-range Gadoken fireballs, as well as 73 different types of taunt that Dan has personally perfected. It's a lovely, happy scene, so obviously nothing can go wrong from here.

03



» Three days later, Dan's performing his housework before training begins, when he spots a delivery from the postie. Sakura must have been spreading the word of the great Saikyo-Ryu dojo, as it appears that new applications are being made.

04



» But it turns out that Sakura herself is responsible for the letter, and it's not one that's going to please Dan. The first and only student of the Saikyo-Ryu style has not only decided to quit the dojo, but also to completely disregard all of its teachings! What a cruel twist. Dan can't be too pleased about this.

05



» Apparently, Sakura has mastered everything that Dan had to teach her, but it transpired that the moves not only looked stupid, but were totally useless in a fight. She bids our hero an unkind farewell, and he unleashes his emotional response – twin waterfalls of tears. Poor old Dan Hibiki.